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Number 96

June - August 1996

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16 EARTH GARDEN



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— OF SUFFICIENCY AND PLANET CARE —

# EARTH GARDEN

— FOR BUSH OR CITY ALTERNATIVES —

**Queensland Permaculture — see page 16**

**Jackie French's Seasonal Column**

**Eucalyptus Oil Steam Engine**

**Replacing Lawn With Garlic**

**Furnishing The \$1000 Home**

**Fuel-Free Water Pump**

**Why Keep Animals?**

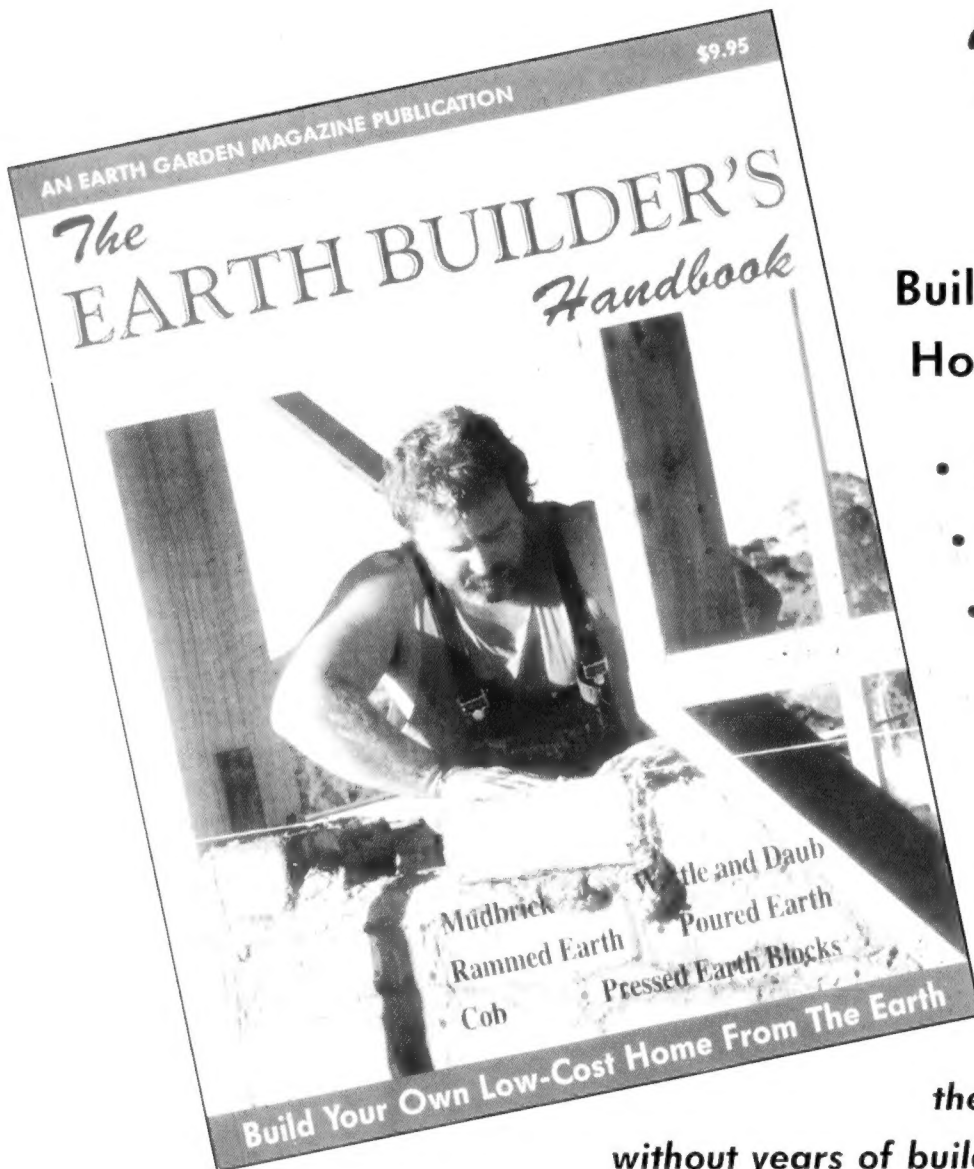
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**Front Cover:** Permaculture in far north Queensland means a colourful and healthy lifestyle for the van Rader family of Malanda. In a few short years they've transformed their one hectare block from a bare paddock into a flourishing tropical paradise. Read about their projects on page 16.

—SELF SUFFICIENCY AND PLANET CARE—  
**EARTH GARDEN**  
 —FOR BUSH OR CITY ALTERNATIVES—

**Number 96**  
**June - August 1996**

**Back Cover:** This photograph of the famous Rock Island Bend on the Franklin River in south-west Tasmania is a classic example of the graphic and tantalising images of Australia's wild places produced for many years by Peter Dombrovskis, Australia's premier wilderness photographer. His tragic death in late March ended a career which helped to inspire and motivate a generation of environmentalists to work for Australia's wild places. On page 80 we pay tribute to Peter's life and work. Photograph reproduced with kind permission of West Wind Press.

**EcoTax:** This edition's EcoTax will go to the Boroondara co-operative community kindergarten, which serves the children of low-income, migrant families in the Richmond Housing Commission flats in inner Melbourne. The kindergarten is about to renovate its playspace with indigenous plants, trees, herbs and shrubs, which should brighten the look of the children's play areas.

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 Jackie French  
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Founded by Keith & Irene Smith, 1972.

EARTH GARDEN is Australia's original journal of self sufficiency and alternatives. It is a forum of practical ideas, shared knowledge, sources and a guide to alternatives to high-consumption lifestyles.

It's about putting a roof over your head, growing your own food organically, aiming for appropriate, renewable home energy systems and surviving — and thriving — in the city or the bush, with the inner changes which follow when you're in harmony with Nature.

**Ecotax:** each issue we donate a portion of the cover price to a community group involved in tree planting or conservation projects to help balance the use of the partly recycled paper used for printing *Earth Garden*. We would like to see all publishers pay an Ecotax.

*Earth Garden* is printed on paper made from plantation-grown timber.

Contributions to *Earth Garden* are welcome — sharing information and experiences with other readers strengthens the network of Earth Gardeners. Photos, illustrations and diagrams are important. Please write first with your story idea. Remember subscribers are sustainers — for subscription details see page 96.

We welcome advertisements appropriate to the aims and ideals of *Earth Garden*, but reserve the right to refuse ads at our discretion. Contact us for display rates.

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## — Far From The Madding Crowd —

Dear Readers,

Welcome to the winter edition of *Earth Garden*. I'm writing to you earlier than normal for this edition, because Judith and I are preparing to leave Karen and Greg holding fort in the office while we go on a two month trip with Tane and Harry, camping and fishing in the Kimberleys and Kakadu. Each winter now we seem to get away from the cold of central Victoria's highlands to the desert, and this year it's to the Top End. I'll be writing a few articles along the way, and they'll gradually pop up in future editions. Last year we travelled across the Simpson desert and spent time poking around Alice Springs, and the result was the articles about the Centre for Appropriate Technology in EG 93, and the date farm in EG 94.

When we advertised *The Earth Builder's Handbook* in the March edition, we forgot to include it on the order form on the last page. We managed to slip a little order form in with the subscribers' copies before they were mailed, but people who buy *Earth Garden* at their local newsagent, or read it at the library may have wondered why there was no mention of the book on page 96. It's now firmly at the top of the order form in this edition, and it's selling extremely well. We're pretty pleased with the book, and it's delightful to gather together the experiences of so many *Earth Garden* readers and writers to encourage other people to consider building an earth home.

There are two regular columns in *Earth Garden* which, like some of the more established columns, have started to become favourites. These are Michael Uniacke's 'At Least We've Started', which approaches a change of lifestyle not from the point of view of someone who already knows all the answers, but as someone who is new to country living. The other is our recipe column by Daylesford chef, Gary Thomas. Gary's column is as much about life as food, and we've had many readers tell us how much they enjoy his style of writing. Gary's off fishing as I write this, and his column just made it in by the skin of its teeth.

We had a fairly disappointing summer vegetable-growing season this year. In fact a nasty frost at the office in early March killed off our plans for a 1996 corn harvest party. So to all the friends and family out there who thought we held it without inviting you — you're wrong!

The exception to the lousy vegie season of cool, erratic weather, was tomatoes. After four years of green tomato pickles, I finally grew a few decent ripe ones, simply because I've built a semi-permanent igloo with plastic sheeting over the tomatoes, after being inspired by all the ideas and plans for greenhouses in EG 93. It was a pretty

crude structure: 1.5 metre-long star pickets banged into the ground (in rows either side of the rows of tomato plants) with five metre lengths of 40 mm diameter black polypipe wired to the star pickets. I then bent the polypipe over to form a dome shape, and wired it to the corresponding star picket on the other side.

Next Harry and I taped together 2 metre widths of clear plastic to make a four metre width which was about ten metres long. This made the whole thing long enough to drape over about a dozen mature tomato plants, and meant we were still picking ripe tomatoes in late April. It seems to have worked, and it's one of those jobs I wish I'd done years ago, but never seemed to do. Finishing off the new chook shed is another of those never-get-around-to-it jobs. The half-covered roof of old cut-down fence palings whacked on as shingles, stares at me every day on the way to work, along with the pine flitch walls which are also half-finished. I'm glad I don't get too fussed about not finishing jobs in a hurry, but I'm also glad that Judith doesn't worry about me finishing jobs like that in a hurry either. She is incredibly patient with my projects — I have just finished a section of bush pole fencing to stop the wallabies munching her prize spring bulbs, and she's only waited about four years.

We've also made good progress on getting in our firewood for winter. It looks like this'll be the third or fourth year in a row where we've cut, split and stacked all our own firewood, and that's a satisfying task when it's so easy to simply ring up the local wood merchant.

In February we installed brand new solar hot water collectors to supplement our wood stove's hot water jacket. There hasn't been a single night since then when we haven't marvelled at the efficiency and pleasure of having a solar hot shower. We bought the hot water collectors from our friend, Stephen Ingrouille, at Going Solar in North Melbourne, and our plumber called them the "Rolls Royce of solar hot water panels".

All these autumn tasks seem to fit neatly into a slow but gradual move closer to the sort of self-sufficient lifestyle we often daydream about. Just because we publish *Earth Garden* doesn't mean we organise our time or lifestyle to do every single thing you read about in EG. However, we're just as excited as any other reader about the information, ideas and projects presented in these pages. I suppose that's partly because I used to read *Earth Garden* avidly before I was lucky enough to take over running it from Keith and Irene Smith nearly ten years ago. Like getting hitched to Judith, it was a once in a lifetime opportunity which I grabbed with both hands and have never regretted.

Happy reading,

Alan -



*Earth People Write* is an open forum. The views expressed in letters from readers do not necessarily reflect the opinions of *Earth Garden*. Letters are welcome, but please keep them concise.

### The long arm of the Earth Gardeners

*Dear Alan and Earth Garden staff,*

Your magazine's influence is more powerful than you may realise. After you printed my letter on the dangers of disposal of the ionising smoke detectors in EG 93, ABC Radio in Newcastle telephoned me for an interview on this subject. I was able to inform listeners about the potential problems which will be caused by the disposal of millions of smoke detectors in municipal tips after they break down (air, soil and ground water pollution with radio-nucleides).

I also had a letter from one of Earth Garden's readers, Ruth Goldhaar. She informed me that the 'good' non-radioactive smoke detectors (photo-electric ones) are now available from a new distributor. *Earth Garden* readers should know that the new address to contact for buying photo-electric smoke detectors is: BRK Brands, Unit 3, 232 Bluff Rd, Sandringham, Victoria, 3191; phone: (03) 9521 6515, or their head office in NSW: BRK Brands, Pty Ltd, Unit 7, Riverside Centre, 23-28 River Road, West Parramatta, NSW, 2150. Perhaps readers could contact their local shops and request that photo-electric smoke detectors be obtained and kept in stock.

Our group is telling people that if they cannot get the photo-electric detectors or have already bought ionising ones, then obviously any smoke detector is better than putting the family at risk from fire. However, ionising smoke detectors should be returned to the manufacturers when they fail, and definitely not be put out with the rest of the household rubbish to go to the tip. With very best wishes to all the hard workers at *Earth Garden*, and the readers of this wonderful magazine.

Yours sincerely,

**Gillian Blair, President, South West Environmental Action Group, Inc, Warrnambool, Victoria, 3280.**

### Pressing need for mudbrick machine

*Dear Earth Garden readers,*

I'm interested in buying a cinva-ram, Dalrac or similar device for making pressed earth blocks. Failing being able to purchase one, I need detailed plans for constructing one. Many thanks,

**Kylie Warnock, "Auchtralure", Mendooran Rd, Dubbo, NSW, 2830.**

*Dear Kylie,*

*EG 92's Earth People Write had a similar request and our Office Co-ordinator, Karen Sandow, replied that she'd picked up a Dalrac press secondhand for \$65. Self sufficiency suppliers like Going Solar in North Melbourne are also a good bet. Otherwise, try putting an Unclassified in Earth Garden, or an ad at your local hardware store.*

—Alan.

### In need of a cooper

*Dear Earth Garden,*

I am interested in traditional miso making and require small fermentation vats. I was hoping that someone in the *Earth Garden* network might be able to help me locate earthenware crocks, or, alternatively, wooden buckets.

They must be fairly straight sided to allow a 'floating' lid to sit inside the crock, on top of a batch of fermenting miso, with weights on top to provide compression. Ideal capacity would be around 40 to 50 litres. I am willing to pay and interested in any suggestions.

**Richard Sandilands, 22 Francis Street, East Sydney, NSW, 2010.**

*Dear Richard,*

*If I needed a wooden bucket, I'd contact Earth Gardener and cooper, George Smithwick, who was on the cover of EG 92. You can phone him on (03) 9745 2362.*

—Alan.

### Taking care of farm business

*Sir/Madam,*

Please let me avail your widely circulated informative magazine to canvass for a serious response. I seek to be offered an opportunity similar to my recent holiday experience of working for my partial keep on a farm in the Canadian wilderness. This proposal is especially opportune for someone with a modest freehold who plans moving away and wants to assess a prospective buyer first to ensure the same respect of the environment will be sustained. In return, while helping to maintain and improve the place, I may learn more about it and permaculture. Yours in caring for the environment,

**Joseph Hanecheon Lamb, Adelaide High School, West Terrace, Adelaide, SA, 5000.**

### Hypocritical politicians and ambassadors

*To whom it may concern (Everyone on Earth),*

I'm writing to inform everyone about my opinion about all nuclear testing in the South Pacific. First of all, when my mother lived in the South Pacific as a child there were no deformities with the fish and with the people. And only 30 years later, the French came along and started their nuclear testing in the South Pacific. That's when all the deformities came out. But the French ambassador denies that the nuclear testing is a big catastrophe! But I have two questions to ask him. No 1: Why can't he do it in France if it's so important to the French?! No 2: If the testing has not affected life in the Pacific, why doesn't he live in the South Pacific and eat the seafood and drink the so-called "fresh water"? But, the Australian Prime Minister is as much to blame for this as the French ambassador. Because Paul Keating (and now John Howard) is the one allowing Australia to sell the main ingredient for the testing, which is uranium, to the

French. So, if Australian politicians are really against the testing, why don't they stop selling uranium to the French? Does the French ambassador have any feelings for the islanders? Or maybe it would do him good to live in the South Pacific for a while, and see how easy he thinks that type of lifestyle is. Well that is all I have to say for now, and I hope that everyone else agrees with me. From:  
**Celeste Nota (11 years old).**

*Dear Celeste,*

*You really shine a spotlight on the hypocrisy of Australian politicians. Paul Keating and his right wing ALP faction tried desperately at the 1994 Hobart ALP conference to allow open slather uranium mine expansions. They failed by only a few votes, and no doubt would have tried again if they'd won the federal election. So people who think the ALP are much less hypocritical about uranium than the Coalition are wrong — both parties are woeful. Any readers can write to the new environment minister, Senator Robert Hill, asking him not to allow uranium mining to expand (especially at the moment into Kakadu National Park) by writing to him c/- Parliament House, Canberra, ACT, 2600.*

*—Alan.*

### **Any spare comfrey roots?**

*Dear EG,*

My family is finally making the big move to a country lifestyle, and taking the opportunity to practise all the fascinating organic theory we have been enthusiastically absorbing for the past three years. Would any of your readers have a quantity of established comfrey plants that they could share? I want to use comfrey in our compost and for potatoes but have been unable to find any advanced plants. As we are in our fifties I don't want to wait three years for the little seedlings I have found to become established. I would be delighted to pay postage and an amount for the plants. Thanking you for all the inspiration over the years.

**Margaret Arnold, RMB 8855, Sarsfield, Victoria, 3883.**

### **Low maintenance Earth Gardening**

*Dear Earth Garden,*

Your magazine has been much enjoyed by the whole family and I have no intention of letting my subscription go. Nine months ago I moved into my new solar-powered (and passive) house and feel very at home in the bush. There will not be any garden to worry about. I will just have

native grass around the house for the kangaroos to mow and will only plant native trees and bushes — well, there might be a few deciduous trees for autumn colour. I always save the end pieces of soap and tried to make liquid soap by adding water and soaking them for a long time. Does anyone know how to recycle soap in this way because my way didn't work.

**Sandra von Sneidern, "Mittbo" PO Box 93, Braidwood, NSW, 2622.**

### **Just doing it**

*Dear Earth Garden,*

My husband and I wrote to you for the first time some years ago, when we were requesting a subscription for your magazine. At that stage we were only dreaming of one day owning our own property, and saving very hard too, for the fulfilment of that dream.

Well, we have finally found our own 'dream patch', away from screaming neighbours and polluted streets. We recently purchased 50 acres in Gormandale, a tiny town out the back of the Latrobe Valley. The land is wonderful, undulating — but not too steep — and very green. We have six acres of fallow deer and the rest is for cattle, which is currently being agisted. On moving onto the property, some very dear and wonderful friends of ours from Melbourne painted the house right through from top to bottom as a house warming present! They call this their 'second home' and find it hard driving back to the mayhem of city life.

Last year we caught up with *Earth Garden* at the Warragul Farm World and promised to write when we had settled. Well, now is the time as we fear that further issues of the magazine may still go to the 'old place' and we hardly want to go in and pick them up! So, enclosed is our new address and our thanks for a fantastic magazine and staff who take the time to put it all together. Just a quick word of encouragement to those readers who are still dreaming as we did for six years: seek and ye shall find ... JUST DO IT! Thanks again and all the best. Yours thankfully,

**Rum and Cat Barlow, Gormandale, Vic.**

### **Growing limes on beautiful Waiheke**

*Dear Earth Gardeners,*

This is the first time we've written to you since we moved on to our own little piece of earth — just under two acres, water, shelter, sunshine — it's magic, and we can't quite believe it's ours. With this piece of land, we've inherited a small orchard with

50 young lime trees. We're having trouble finding a 'how to' for growing limes/citrus organically — in fact, even the chemical-orientated books are few and far between. Can any of your readers recommend any books on this subject? The page in *The Australian Self-sufficiency Handbook* has some useful tips, but we're looking for something more detailed than this. Thanks, as ever, for a fantastic magazine — keep up the good work, it is greatly appreciated.

**Sarah Francis & Kenny McCausland, Flying Cat Farm, 48 Eura Road, Ostend, Waiheke Island, New Zealand.**

### **Green ants get their day**

*Dear Sir,*

*Earth Garden* is always a good read, and the latest edition is no exception. The question and answer section is a bit of a favourite, as it gives an overview of the many problems faced by all organic gardeners. In EG 92, a reader wrote in asking for information on getting rid of Green Ants, and as usual, Jackie French came up with the goods (page 77). Green ants are definitely not partial to sump oil, caterpillars on the other hand invoke a very different response. One or two grubs are a nice little snack, a brassica covered in cabbage moth caterpillars is as near to heaven as a green ant can get. Green ants are insatiable little devils that prey on a wide variety of insects, but caterpillars are number one on the hit list.

Everyone hates green ants, but I reckon they're great. With a little bit of tinkering they can be encouraged and trained to turn garden pests into garden fertiliser. Aside from the practical benefits of green ants, they're fun to play with and as with all Nature, they're great teachers.

**R Stephens, South Johnstone, Qld.**

### **Enjoying the journey**

*Dear Earth Garden,*

After saving vigorously for the past two years, budgeting and planning, we've left the rat race to find a better quality of life. We own four acres of land in a lovely little town near the ocean and are in the middle of building our own house there. We're camping there in the meantime and in between building the house we make time for growing vegetables in our shadehouse using hydroponics and for fishing and relaxing at the beach. Thanks to encouragement from your magazine we're starting to enjoy life instead of stressfully rushing through it. Please continue to send us *Earth Garden* at our new address.

**Stuart McAlpine, Agnes Water, Qld.**

## How to buy land?

*Dear Earth Garden,*

We are presently city dwellers addicted to the comforts and convenience of a consumer society, but longing to kick the habit. What are the successive steps to becoming self-sufficient? Even though the necessity for us to become less and less dependent on this anti culture ('normal' city living) is increasingly apparent, we are confused as to what, when and how, to do. We would love to buy some land out of the city and do some of the amazing things we read about in *Earth Garden*, but we don't have much idea about the particular land to buy.

Nutrition, particularly from natural, chemical-free sources is also something we are interested in, but are finding it difficult to get our hands on any inspirational information with regard to it. We would love to hear from anyone who is proficient in truly organic growing (no sprays or chemicals whatsoever). Yours sincerely,

**Daniel & Maggie Bryan, 123 Chester Road, Eight Mile Plains, Qld, 4113.**

*Dear Daniel & Maggie,*

*You could do worse than joining WWOOF, and spending a few weekends on organic farms learning some methods and ideas. As usual, Lionel Pollard's regular WWOOF column is in this edition of EG.*

—Alan.

## Blueberry disaster causes grief all round

*Dear Alan & Judith,*

I enjoyed your magazine until EG 91 when an article was published concerning blueberries. Well, like myself, several friends in Victoria, South Australia and New South Wales wrote to obtain blueberry plants. Some enclosed cheques and money orders to obtain these plants because in your article the farmer quoted prices for these plants. I believe either he isn't operating correctly or there is something very much wrong with his operation. I've had my say for now and all the best for the year 1996. Many thanks,

**Colin Franklin, Yea, Victoria.**

*(letter edited for length and libel)*

## Ann Cliff, a regular *Earth Garden* writer who wrote the profile of blueberry farmer, Mal Deveson in EG 92, replies to the above letter

*Dear Alan and Karen,*

I was concerned to read Mr Franklin's letter about Mal Deveson and the blueberries. I have spoken to Mal, who is

also concerned. To my knowledge Mal is a man of integrity and I am sure that any problems have arisen by accident and will be put right. Mal's phone is listed under "Moondarra Blueberries". When people ask Telstra for his number quoting his name, they are told that it must be silent. About the time the article on blueberries was published, Mal Deveson lost all his possessions in a house fire. It is possible that among them were some requests for information or for blueberry plants. If any readers have tried to contact Mal and failed, he would very much like to hear from them.

Concerning the price of plants, Mal's price is \$2.95 a plant as before, for commercial quantities of 100 blueberry plants or more. Mal can be contacted on (051) 653 238 which is also a fax number. His postal address is RMB 3160 Moondarra, Victoria, 3825. I hope that we can restore Mal's good name and preserve the credibility of *Earth Garden*, which I have never before seen questioned! With best wishes to you all,

**Ann Cliff, Hill End, Vic.**

## An alternative view

*Dear Alan,*

When I bought issue 92 of EG from my newsagent, a friend had nearly finished reading his copy as he gets it through subscription at least a week before it gets onto the newsagent's shelf. So enclosed is my cheque of \$57 for a three year subscription! Thank you for a great magazine. I use many of your articles in my lower secondary classroom hoping to instil some deeper regard for the simpler things in life rather than TV, video games, computer games and all the other trimmings of the fast lane, consumer society. Looking forward to another three years of great reading. Thanks a lot. Yours,

**Val Davies, Safety Bay, WA.**

## Secondhand window of opportunity

*Dear Sir/Madam,*

Our company, Cordan & Building Line, is doing a project for the Recycling & Resource Recovery Council (RRRC) to promote the use of secondhand windows and frames in domestic buildings. Our target group is specifically builders, owner builders and home renovators. We are trying to ascertain the feasibility of promoting the wider use of secondhand windows in domestic buildings. To date we have contacted Melbourne metropolitan councils and those in the Ballarat, Bendigo and Geelong areas to obtain the relevant guidelines for the use of these secondhand materials and any regulatory barriers which impede the

reuse of such materials. We have also contacted many demolition yards and firms already dealing in the retrieval of building materials. If any of your readers, either as builders, owner builders or suppliers have had dealings with secondhand materials and think it would be relevant to our project, we would love to hear from them.

**Stuart, Haffenden, 20 Paul Road, Forest Hill, Vic, 3131.**

## Vegan ice-cream recipe?

*Dear EG,*

We are both readers of *Earth Garden* and enjoy reading your articles. We are writing to request a vegan recipe from your readers, if it exists. We are looking for an ice-cream recipe that doesn't use animal products. We aren't vegans ourselves, just interested in the food from time to time. Your assistance in this matter is much appreciated. Kindest regards,

**Dale Pope and Sonja Vassallo, c/- Post Office, Stanley, Vic, 3747.**

## Corresponding approaches

*Dear Earth Garden,*

Ever since I discovered your magazine five years ago I have bought every copy, finding so much of interest and inspiration, thank you. At the moment I live in the middle of suburbia in a caravan park. It is quite good and I certainly enjoy living here but I dream, as so many of your readers do, of being able to buy a few acres of land and live more in harmony with the planet. That I will do one day. Till then however I can do what I can and am lucky to have a small area where I can grow many of my vegies and attract the native birds — mainly the lorikeets.

I would love to correspond with other Earth Gardeners as I am rather isolated from those who think along the same lines as me. All my friends are interested in careers in banks etc. I don't care how old you are, what sex or sexuality, where you are or anything. If you write I will respond. So I hope to hear from you soon.

**Jason Allen, 1497 Creek Road, Carina, Qld, 4152.**

## Ballarat friends on the right path

*Dear Earth Garden,*

Just writing to renew our subscription and to say thank you for some very interesting and helpful information. The fingerless mittens pattern in a previous EG has come in very handy as I now have a useful pair of mittens to deliver mail with as well as for work in the garden. We've built

a solar oven but have not had the chance to use it yet, although I did proof some bread in it before it was finished and it did the job quite well. We have bought a copy of Jackie's chook book but can't seem to keep our chooks safe from predators to get any real benefit from it. We live in town but try to use the space we have to grow food etc. It will take time to get it right but with the help of your magazine we're getting there. Thanks, Michael, Jackie, Sean and Kathleen O'Meara, Ballarat, Vic.

## SA wings spreading

*Dear Earth Garden,*

I felt 'the call' so strongly to go to the country and give up the city earlier this year. Having absolutely zero experience and no knowledge whatsoever about country living, I set out to find some. The first magazine I found was yours and what a wonderful wealth of knowledge you are! Not only that but the general feel of your magazine and readers seems very warm, friendly and wise. My aim is to get 'out there' eventually, work towards self-sufficiency and be kind to the Earth and her animals whilst doing so. In time I hope to be able to set up a kind of halfway house for injured or unwanted animals. But HELP! Can anyone advise me on how to obtain the necessary skills? Yes, okay, I do gain a great deal of learning from *Earth Garden* — but I do feel like a real 'babe in the woods' if you'll pardon the pun. And I haven't been able to connect with any like-minded people in Adelaide.

I recently did a small course on starting a farm but it disillusioned me greatly. Firstly in all the building regulations, insurance regulations and all the other regulations that seem to go with living in the country. Now this course wasn't at all in tune with organics or self-sufficiency, but it horrified me when cruel acts like tailing lambs or shooting kangaroos and feral dogs were discussed. Is there not a more peaceful way of living on the land?

From your magazine I have been so inspired by amazing people like Peter Lees and Jackie French. And especially Carol and Mark's courageous story of building their \$1,000 home. I take my hat off to you — you are truly amazing people. So I ask is there anyone, ANYONE out there who could write to me with some advice and answer my questions. Also I would be extremely happy for the opportunity to learn by working for someone, especially if they're building a home. I would appreciate hearing from you, or indeed anyone who needs a hand on their

land. So yes, I do feel rather overwhelmed by how I can achieve my dream and this lost sheep would love to receive any advising letters. And *Earth Garden* — thank you for your valuable magazine. Warmest regards, Lea Rain, 18 Westport Ave, Queenstown, SA, 5014.

*Dear Lea,*

*All I can say is thank goodness Lionel writes his regular WWOOF column in EG.*

—Alan.

## Beaudesert into beauparadise

*Dear EG,*

For ten years I have intermittently bought your magazine, and like so many readers, it continues to inspire and touch a place in the soul which longs for something more than the drudgery of city-life and commuting to work five days a week. We now have 70 acres halfway between Beaudesert and Rathdowney — degraded, denuded, eroded cattle country. Why? To see if we could restore some life back by planting, planting and more planting. We hope to develop a permaculture system with woodlots, food gardens and all the other wonderful things we've read about and tried on a small scale on inner city perches. We also want to have a go at agroforestry and growing native flowers commercially. Anyone in the Beaudesert area: we'd love to hear from you if you are into those things, or have managed to grow a garden successfully with little water these past few years. Any mudlarks out here or stone builders? All mail will be answered. Looking forward to our parcel of books, back copies and subscribed copies — YES!

**Claudje Lecompte & Neil de Gail, 89 Villiers St, New Farm, Qld, 4005.**

*Dear Claudje and Neil,*

*Good on ya for tackling dry, degraded land. Judith and I sometimes wish we'd bought a bare block which we could reforest, rather than a bush block. Good luck.*

—Alan.

## Potted spuds?

*Dear EG,*

I am a 22 year old recovering from a serious car accident and find your magazine so inspiring as all my time is now taken up with reading *Earth Garden*, different craft projects and gardening, so I would like to know if there is anyone out there who knows how to grow potatoes in a sunny position in a pot. Please write to me if you have a solution to my problem. Also, I

would like to see more crafty projects in EG. Thank you for the ideas, Stephanie Gillam, 14A Chelmsford Ave, Ipswich, Qld, 4305.

## Natural worm medicine?

*Dear Earth Garden,*

Another thanks for a very informative and money saving magazine. I have five littlies, and would like to know if anyone out there would know of a natural alternative to worm medicine (combantrin) for the kids. It does need to be 'reasonably palatable' but then — I'm willing to 'try' anything. I will try to answer all letters.

**Grace Spicer, PO Box 194, Esk, Qld, 4312.**

## Earth Gardener's hand-drawn cards

*Dear Earth Garden,*

I have made the big move to East Gippsland and couldn't have made a better decision. Clean air, rivers, lakes, mountains — it's got everything you could wish for. At the moment I'm renting a farmhouse with loads of fruit trees, which is a bonus. I have started a vegie garden and have chooks and ducks. My sister and I made the trip to the Big Smoke for the Burnley Field Days run by *Earth Garden* last year and it was excellent. We had a great time and it was wonderful to actually meet Alan and Jackie and others connected with EG. I came away inspired to do so much more.

I hand-draw greeting cards and make a few craft items and I've had my first big sale to a gift shop so with some of my bounty I'd like to subscribe to *Earth Garden*. Thanks for a great mag. I'll look forward to it coming in the post: no need to hang around the newsagents for days waiting for it to arrive. Love to all,

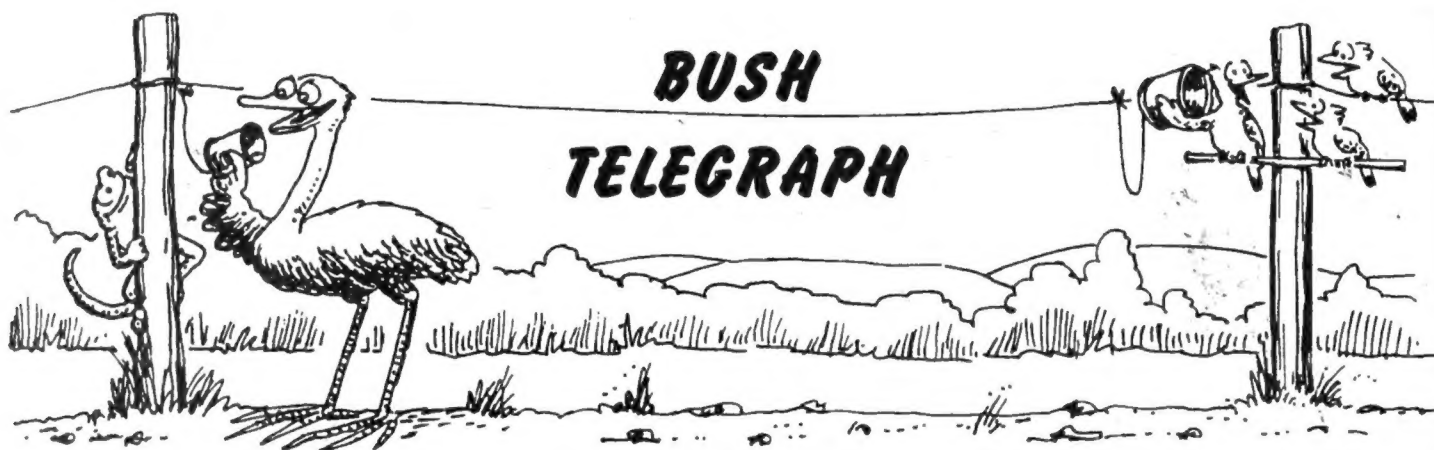
**Ali Baxter, Tambo Upper, Vic.**

## Rent and buy option in SA?

*Dear Earth Garden,*

Thanks for the great magazine. I feel really good in spending my hard earned money on it. In learning so much from it, I'll always continue on buying it. I'd like to ask a small favour because living so far away makes it hard to find reasonably cheap real estate in South Australia. I was wondering if any kind person is looking to sell a small acreage and house in (the green part of) South Australia on a rent/buy basis? My small family and I are in desperate need of a

**• Earth People Write continues on page 84**



**Any news items which may interest Earth Gardeners may be submitted to *Bush Telegraph*. Please send notice of meetings, festivals and gatherings well in advance of the events.**

### Another first for composting toilets

The first seven houses in Kooringa Co-Housing Co-operative's permaculture village are proceeding in South Australia, each with a 'Rotaloo' composting toilet. Kooringa featured in EG 85 with its plans for an eco-village combining co-housing and permaculture, on the edge of Burra, in the heart of dryland sheep and wheat country north of Adelaide.

Kooringa have been working on gaining Development Approval for over two years, overcoming a number of delays, mainly due to the innovative nature of the project. Composting toilets, although increasingly understood, proved to be the sticking point in gaining council approval. The State Health Commission approved the toilets in May 1995, but it took Burra Council until January 1996 to agree, because Kooringa is in a sewerage/septic area. The Health Inspector argued that Kooringa had "plenty of water", although it is pumped 80 km from the Murray, to a height of 450 metres above sea level using a huge amount of electricity. The Co-op went to the Environmental Court to achieve a compromise based on 18 months of monitoring the toilets in use.

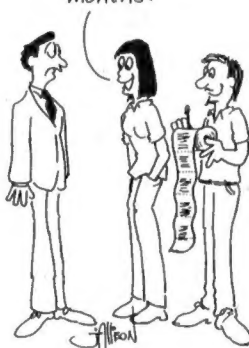
"This is great news," said co-op member, and former *Earth Garden* permaculture columnist, Ian Lillington. "Now, instead of buying water to flush away nutrients, we can return them to our degraded soils to help turn a bare paddock into a permaculture paradise. We will begin earthworks in winter, allowing us to begin landscaping immediately. Houses should be ready for occupation in 1997."

The new homes are largely financed by the South Australian Government's Community Housing Program.

Kooringa is combining permaculture principles with co-housing — a Scandinavian idea where each member has their own home, but share resources like laundry, library, play space and meals in a community house (see EG 85 for more details). Membership enquiries are welcome from people interested in becoming tenants. Contact Jo Middleton on (+61 for overseas) (08) 88922 357, or send an SAE to 1 Ware Street, Burra, SA, 5417.

—Ian Lillington

Todd here has been monitoring the Rotaloos for 18 months!



### Tiger Balm best for headaches

A new study has found that the ancient Asian herbal ointment, Tiger Balm, relieves severe headaches faster than paracetamol. Over three hours Tiger Balm provided more immediate relief and almost the same pain-dulling effects.

"A small amount applied to the temples provided strong and effective relief to the majority of patients as a topical (not digested) preparation," said the study authors. Nearly 75 per cent of the patients said they would use Tiger Balm again, although several noted that the ointment produced a warm or tingling sensation when applied to

the forehead. Tiger Balm contains camphor, menthol, clove oil and cajuput (a herb used as a mild stimulant) but the study could not determine why it was effective.

### The Fragrant Garden Art Competition

Well-known NSW nursery, The Fragrant Garden, is offering over \$2,000 in prizes for art works in any medium (oils, watercolour, clay or pencil) of The Fragrant Garden, some part of The Fragrant Garden or a plant or plants growing at The Fragrant Garden. This could include the gallery, the waterfall, the café, the garden, the nursery, the old orchard, a still life or the animals (if you can catch them). There are youth and junior prize categories, so maybe a budding Monet may emerge. There will also be a culinary herb prize of \$500 for the best work depicting a culinary herb, and a prize of \$500 for the best work depicting a medicinal herb. Artists are welcome to set up easels in the garden any time during business hours. For more details and an entry form contact Jackie Jones on (043) 677 322. Entries close 21 December 1996, and judging will take place on 7 January 1997.

### Living in the greenhouse

A community seminar and workshop presented by the Sydney branch of the Alternative Technology Association will be held from 8:45 am to 4:30 pm on Sunday 16 June at Macquarie University, Sydney, in room 131, building E6A. You can find out practical ways to save your money, health and quality of life while reducing contributions to the Greenhouse Effect. Speakers will help people: understand Australia's contribution to the Greenhouse Effect; cut their power bills; find out how much their household contributes to the damage being done;

find out how other people have reduced their impact; improve health by eating food which is also good for the environment; reduce the amount of time people spend in their car; interpret the restructuring of the electricity industry; become involved in projects that will help fix the problem.

A resource kit will be available to all participants and follow up seminars are planned. The seminar is open to all concerned members of the community and costs \$15 on the day or \$10 in advance (concession \$8 and \$5). The event is a co-operative activity of the following organisations: the Alternative Technology Association (organiser), Integral Energy, Hawkesbury-Nepean Catchment Trust, Greenhouse Action Australia, Greenpeace, NRMA, Macquarie University's School of the Environment (host), Permaculture Sydney Association and the Vegetarian and Vegan Societies. Contact Bob Jones for the Alternative Technology Association, Sydney on: (02) 498 5001(h) or (02)235 5790(w); fax: (02) 498 3170, or e-mail at: bobjones@triode.apana.org.au.



### Aussie kids' lead levels down

Lead levels in Australian children are lower than anticipated according to a report on a national survey of blood lead levels in children aged one to four years recently released by the Australian Institute of Health and Welfare. In early 1995 blood lead levels in 93 per cent of children were below the national target set by the National Health and Medical Research Council. The aim was for 90 per cent of children to be below this level by the end of 1998. Blood samples from 1,575 children were analysed in the survey.

"Because of the continuing decrease in use of leaded petrol, Australian children can be expected to have still lower levels over the next few years," Dr Donovan said. "But we should remember that most high blood levels are associated with disad-

vantage. Average blood lead levels were higher where the household was economically or socially disadvantaged and where the family cars used leaded petrol. They were also higher where the home was older, or where paintwork was in poor condition."

The survey results point to a need to reduce dust inside homes. Dr Donovan said that although the origin of lead in house dust was not always apparent, it was identified as a major contributing source of approximately half of the two per cent of children with the highest blood levels. He said parents should also take safety measures with hobbies which disturb lead-based products — especially panel beating and renovating old homes.

### Ginger put to skin tumour tests

There is something about ginger that seems to prevent tumours, according to researchers who treated mice with an extract of the pungent root and then exposed them to cancer-causing chemicals. The mice had fewer skin cancers than mice which didn't get the herbal extract, a dermatology researcher reported in the latest edition of the journal *Cancer Research*.

"It produced remarkable preventive effects," said Mr Hasan Mukhtar, a Case Western Reserve University dermatology researcher. But scientists are not yet sure what it is about ginger that seems to prevent tumours, or whether that property will have the same effect on humans. "I think there is a long way to go but the only way to know for sure about its effects on humans would be to do a case study. I think we are at least 10 years away from that," Mr Mukhtar said.

Researchers extracted the oil from freshly cut ginger and put it on mice exposed to chemicals known to cause cancer. The researchers then tested the skin of the mice for certain enzymes present during tumour formation. The ginger significantly inhibited the enzymes.

### RIC strong as ever after 15 years

After 15 years, The Rainforest Information Centre (RIC) in Lismore in northern NSW is still alive and actively campaigning in many different ways. The RIC desperately needs to update its formal membership list and would like supporters to either renew their membership, or join as a member. The RIC's activities in the past 12 months have been jam packed, with overseas research missions and roadshows, direct actions and tours. RIC has also supported campaigns and projects in Australia, Ecuador, PNG,

India, Siberia, the Czech Republic, Malaysia and Indonesia to name a few. John Seed (RIC founder and director) is in South America right now checking new projects.

Donations to the RIC are tax deductible and the end of the financial year is imminent! RIC overheads are minimal: they maintain a policy of no waged staff, so 90 per cent of funds are used where they're needed most. To join the RIC, send \$20 to: RIC, PO Box 368, Lismore, NSW, 2480.

Actually...until I joined the RIC, I thought the only thing they did was produce colorful wall posters!



### California's Pesticides Legal Here

In the crop lands of California, where one-fourth of the nation's farmworkers pick vegetables and fruit, few toxic pesticides match the potency of methyl bromide or are more widely used. Applied mostly to strawberries and specialty crops, the chemical is a nerve gas for soil. It is an odourless and colourless fumigant injected 50 cm into the earth to fight nematodes, other insects and soil diseases. An estimated six million kg of it are injected annually in the US alone.

In 1992, the worker health and safety branch of California's Department of Pesticide Regulation reported that in the previous seven years, 1,600 Californians were sickened by methyl bromide and caused hundreds more to be evacuated from schools and homes. Applied as a gas, the chemical is carried by air drifts into surrounding communities. According to the federal Environmental Protection Agency (EPA), exposure to methyl bromide can cause headaches, nausea, convulsions, psychosis and death. It is a Category I acute toxin, the most powerful class of poisons.

Methyl bromide is a double-duty threat. EPA reports that between 50 and 95 per cent of the chemical wafts into the atmosphere, there to help erode the Earth's protective ozone layer. Under the Clean Air Act, a federal ban on methyl bromide is to begin in 2001. The continued use of this highly toxic chemical on farmlands is a

story of the strength of 'Big Agriculture' and its hold on politicians.

It isn't surprising that politicians put private corporate interests ahead of public health and safety. The difference in this instance is that no debate exists on the dangers of methyl bromide. In 1984, the Californian Birth Defects Prevention Act required that it be banned by 1991 unless manufacturers could provide testing data that it is safe. They couldn't. More time was needed for testing, it was claimed. A pliant legislature said fine, come back in March 1996 with the data. Now it's past March 1996 and the producers, still lacking safety data, have requested another extension, of two years. This will allow California's strawberry industry, which is dominated by large firms that supply two-thirds of the nation's crop, to continue enjoying a juicy average profit of between \$12,000 and \$15,000 per acre. The two-year push back, if the pattern holds, will be followed by another one and then a battle to delay the federal 2001 ban means the public remains at high risk.

—Colman McCarthy, *Guardian Weekly*

### Vitamin E boost stuns doctors

US doctors are astonished by the conclusion of a British study that vitamin E seems to reduce heart attacks by 75 per cent when taken daily by people with bad hearts. "I'm puzzled, most of my colleagues are puzzled," said Boston University's Dr Thomas Ryan. "If the readily available vitamin really works so well," he asked, "why hasn't someone noticed before?"

The British researchers published their findings in a recent issue of the journal *Lancet* and presented them at the annual meeting of the American College of Cardiology. Vitamin E is one of a group of nutrients known as antioxidants. Oxidation is one of the steps that turn fat and cholesterol into a form deposited in the arteries — a source of heart disease. The British team enrolled 2002 people with serious heart disease and randomly assigned them to take either dummy pills or pills containing either 400 or 800 international units of vitamin E a day. After 17 months of follow-up, 50 people had died of heart disease and 55 had suffered non-fatal heart attacks. Fourteen of the non-fatal heart attacks were in the vitamin takers, 41 in the placebo group.

—AP, *Independent*

### Reduced line-up for solar race

Some of the world's biggest vehicle manufacturers may stay out of this year's World

Solar Challenge from Darwin to Adelaide because they're embarrassed at being beaten by high schools, according to the organiser, Mr Hans Tholstrup. During the 1993 solar race high school and tertiary entries reached the finish line before Nissan and Toyota. Thirty-five entries will probably compete: down from 53 in 1993. The smaller field may also be thanks to a higher minimum speed requirement: all cars must be able to travel at 40 kmh.

Honda won in 1993 and is again favourite. The most successful Australian team, Aurora, is hoping a larger budget, improved aerodynamics and a new generation electric motor will give the team its best chance yet of winning. Aurora now has a \$3 million budget (six times its 1993 budget). The new car creates less wind resistance, and a new wheel-mounted electric motor may allow the car to cruise on solar power at between 90 kmh and 100 kmh, up from between 70 kmh and 80 kmh of the previous version, and with a top speed of 140 kmh.



### Sustainable Settlement Research

The SSRI has been formed to establish a wholistic education program, focussing on: sustainable land use and agriculture, renewable energy forms, appropriate and emerging technologies, resource and energy efficient buildings, inspiration and nurturing of self growth, physical and spiritual wellbeing, ethical business practices, and caring, sharing and participation both within the Institute and the wider community. While projects have been selected to be carried out by colleagues in Third World countries, the institute will initially establish itself on the North Coast of NSW, and work in an advisory capacity to other landholders. Practical courses will be taught by involving students in the actual development of the land. Funding will be by donations, grants, loans, service prepayments and membership. Contact well-respected and dedicated sustainable

settlement researcher, Dudley Leggett, at 228 Broken Head Rd, Suffolk Park, 2481; phone (066) 853719.

—*Nimbin News*

### TV waves increase cancers

A landmark study by a Melbourne occupational medicine consultant has found that children living in the shadow of television broadcast towers are at greater risk of developing leukemia. The former chief medical officer at Telstra, Dr Bruce Hocking, has found that children living within about four kilometres of Sydney's main television towers had more than twice the rate of leukemia than children living outside the four-kilometre radius. "This warrants further investigation," he said. Children under 15 who lived in the proximity of the towers were worst affected. The towers, which emit radio-frequency radiation, provide the signal that generates pictures on TV sets.

"It was an unexpected finding because the radiation levels emitted by the towers are much lower than the Australian safety standards. We don't know why it is children who seem to be worst affected," he said. The study found that adults were at less risk than children, but were still under threat. Dr Hocking, the president of the Australasian faculty of occupational medicine at the Royal Australian College of Physicians, said the radiation effects of mobile phone base stations needed to be investigated following the study's findings. "They emit a similar kind of radiation, but we need to establish whether they can affect people in light of this," he said. The findings follow a similar study in Hawaii which found that people living close to Honolulu's radio and television broadcast towers had a higher incidence of cancer than the general population.

### Electric cars: official go-slow

California has softened laws requiring the large-scale production of electric cars after the car industry warned that the appropriate technology was not yet available. The action is a blow for environmental progress, because electric vehicles should be introduced as soon as possible. Many environmentalists believe that car and oil industries have conspired to kill the electric-car program. Automotive pollution plagues California, especially Los Angeles, which has the country's worst air pollution. Officials will now allow car companies to voluntarily sell electric vehicles over the next seven years based on market demand, but will still require that 10 per cent of vehicles sold in California by 2003 are electric.

The change in policy essentially gives car-makers five more years to meet the production requirements. Under the previous rule, 20,000 electric cars had to be sold every year in California by 1998. The car industry said such a rule would have forced manufacturers to market inadequate vehicles which the public would have rejected. Because of technological limitations, many electric vehicles cannot travel more than about 160 km before they need a battery recharge. They also cost at least AUS\$41,000. —AFP

### Uranium mine leaks at tailings dam

Tailings dams built to hold solid ore residue from the Olympic Dam copper and uranium mine (Roxby Downs) were deficient and the mine's operator, Western Mining Corporation, was reluctant to admit that they had begun leaking, a South Australian parliamentary inquiry has found. The inquiry, into the leakage of up to five billion litres of water from the mine's tailings retention system, also found the company's monitoring systems, designed to detect leaks, were defective but that the mishap presented no contamination or health concerns for surrounding communities or the environment.

The Olympic Dam report, tabled in the South Australian Parliament in early April, came out of the lengthy investigation prompted by WMC's revelation in February 1994 that it had detected rises in water levels around the mine site, 500 km north of Adelaide. The water showed no traces of radioactivity but the inquiry found seepage was caused by design deficiencies in the mine's tailings retention system. A national campaign by conservationists has begun to fight plans by the owner of the Ranger mine, Energy Resources Australia, to mine uranium at Jabiluka within the Kakadu World Heritage wilderness.

Also in early April, the recently appointed Co-ordinator of the Northern Territory Environment Centre, Ms Jayne Weepers, gave the Minister for the Environment, Senator Hill, a list of 'incidents' involving accidental leaks of water from the Ranger mine. They included the leakage of water from a uranium ore stockpile into Georgetown and Magela creeks in 1992, the leakage into Georgetown Creek of water from an ore stockpile following a pipe failure in 1994, and the accidental discharge of water during pipe installation in 1994.

Ms Weepers, who is one of Australia's most experienced environment campaigners, has taken over the NT job at a crucial time when threats to the NT environ-

ment include a proposed space base at Mann Point as well as dollar-driven attempts to expand the uranium mining industry throughout the Top End. Ms Weepers is a former Wilderness Society campaigner who campaigned successfully to prevent Coronation Hill being mined, and she has recently finished working for Environment Victoria on the national forest campaign, paper recycling issues, and consumer alternatives to the use of native forest timbers.

For people interested in joining the NT Environment Centre, supporting its work through donations, or becoming actively involved in the Centre's campaigns, Jayne Weepers can be contacted at the NT Environment Centre, at 24 Cavenagh St, Darwin, 0800; or phone (089) 811 984.



### Earthcare group in Hunter Region

Earthcare Park and Education Centre (EPEC) is a community environmental group which is working for a significant change in society through practical and integrated environmental education. EPEC is based in the Hunter Valley region and is establishing their project base at Minmi (halfway between Maitland and Newcastle). The project site will embrace:

- an environmental education and training centre;
- model self-sustaining urban village and permaculture gardens. The village will strongly embrace ecological design and sustainable energy principles;
- working displays of alternative sustainable technology;
- a model permaculture farmlet with plant nursery, mini rainforest with nature/wildflower walks, edible native landscapes, guided tours;
- working demonstration areas which will provide practical knowledge and experience in rehabilitation methods;
- human care and development focussing on solutions for a self-sufficient society.

A great diversity of people are working within the group, however, EPEC would greatly appreciate even more involvement in this critical project. If you are interested or know someone else who might, you can contact Kylie Yeend (049) 349838 or Lorna Adlem (049) 301 759.

### International Permaculture Conference Designs Emerging

The Sixth International Permaculture Conference and Convergence, with the theme of 'Designing for a Sustainable Future', will be held from September 27 to October 7, 1996, near Perth in Western Australia, and permaculture co-founder Bill Mollison is now attending. The conference, hosted by the Permaculture Association of Western Australia, is an opportunity for the Global Permaculture Network to promote permaculture, and will be held on 39 picturesque hectares beside the Swan River.

The key conference elements are Earth Care (exploring strategies in landcare and regeneration), People Care (community and eco-villages, learning with others, re-establishing culture), and New Economic Strategies (how new economics can contribute to sustainability). These elements will stimulate, challenge and extend our understanding of the design principles needed to develop a regenerating, permanent culture on this planet. The emphasis will be on positive action plans, extending the global network, and encouraging local action.

The proposed program will include: four days of keynote presentations, workshops, poster displays, urban field trips, and an expo; a selection of field trips demonstrating the application of permaculture principles on small-scale and broadacre dryland rural sites; a two-day convergence for Permaculture Design Certificate holders.

Poster displays of projects, items for entertainment and a brief introduction from each country are requested. The conference is designed for the whole family and includes a children's program. Swanleigh offers a relaxed country atmosphere, with a variety of spaces for informal get togethers.

There is a range of budget accommodation available, and recreational facilities include a swimming pool, gymnasium, horse riding, walking and canoes. There are vineyards, orchards and national parks close by. A shuttle bus service will operate to the Midland Railway Station. To register your interest, contact: Sixth International Permaculture conference, PO Box 568, Kalamunda, 6076, Western Australia; fax: (Intl 61) (09) 291 9978.

# Steamed Up And Striking Oil

**Larry and Bev Turner use a Strath Steam engine to help run their eucalyptus oil distillery on Kangaroo Island off the South Australian coast. They're pioneering a new type of farming — large scale, eco-friendly farming which encourages native plant and animal species to act as buffers between national parks and traditional broad acre farms.**

**by Alan Thomas Gray**  
*Trentham, Victoria.*

**I**F YOU think petrol-heads are bad, "you ain't seen nothin'" till you've seen two steam-heads nattering hammer and tongs about their Strath Steam engines. When Larry Turner got together with my wife Judith at the Turners' Emu Ridge Eucalyptus Oil distillery earlier this year, the rest of us just stood around and waited for a few hours till they'd talked themselves out.

I tried to concentrate — I promise — but I'm strictly the hired labourer when it comes to our family steam engine. I help chop the firewood, but Judith's the one who can strip down and rebuild the system without batting an eyelid. And when the Strath Steam High Priest — Rod Muller — rings up, he doesn't even bother talking to me about the steam engine. With me, he chats about the weather, then gets down to the engineering stuff with Judith.

Larry and Bev Turner have spent the past four years developing their distillery into an eco-friendly farming venture. The family farm is in the middle of Kangaroo Island surrounded by farmland and along with their distillery they maintain the relocated and restored 1909 MacGillivray post office which houses their collection of memorabilia related to eucalyptus oil and its production, and bushcraft souvenirs for visitors. You can also hire yabby nets and relax on the banks of their dams.

Their oil venture is starting to replace some of the imported eucalyptus oil Australians buy each year. That's right: a massive 85 per cent of Australia's eucalyptus oil is imported from Indonesian and Chinese blue gum (*Eucalyptus globulus*) plantations. That's like importing vegemite, or boomerangs.

The Turners encourage tourists to visit their distillery and for a few dollars Larry will give you a guided tour and a fascinating insight into a charming farming enterprise. No trip to Kangaroo Island is complete without a visit. The Turners make, bottle and sell their oil from their farm direct to visitors and by mail order, and the other two-thirds of sales are made through shops around Australia.

## Growing the resource

There are only ten eucalypt species suitable for oil-making of the 600-odd species throughout Australia. Larry and Bev use the Kangaroo Island narrow-leaved Mallee eucalypt (*Eucalyptus cneorifolia*), and in their 18 to 20 inch (460 to 510 mm) annual rainfall area, such trees can be coppiced for up to 150 years. The narrow-leaved Mallee responds well to pruning, and not only can it be harvested when only four years old, it can be reharvested every two years thereafter.

Larry plans to extend his plantation of Mallees to 100 hectares, by planting 20,000 seedlings grown from spe-

## History Of Eucalyptus Distilleries In Australia

Victorian, Joseph Bosisto, began the Australian eucalyptus oil industry in Australia in 1852, and by the late 1880s dozens of stills had been established on Kangaroo Island. Soon, Australia was exporting eucalyptus oil to countries all over the world, including China, the USA, Germany, the Far East, and Britain. So, eucalyptus oil was our first genuine Australian export product.

The industry peaked in the 1930s when many farmers supplemented their income with a small still, but as wool prices rose through the 1950s, the labour-intensive distilling work became less attractive. Today there are only about ten distilleries throughout Australia, and we now import about 85 per cent of our eucalyptus oil . . .



**Larry Turner and Judith Gray discussing the intimate habits of Strath Steam 'Liberty' steam engines.**

cially-selected seed. November to February is the usual harvest season when he collects the leaves for distilling, and although they can be stored for a couple of months, the best results come from distilling the leaves straight away.

## **Making the oil**

To make the oil once the leaves have been harvested from the Mallee trees Larry uses a simple and traditional process, which makes his farming operation fully self-sufficient, and leaves a natural waste product.

One tonne of leaf is crammed into a huge black 'pot', and then 1200 litres of water are added to quarter-fill the pot. The pot is sealed, and a fire underneath boils the mix until the steam vaporises the oil held in the Mallee leaves. The oil/steam mixture rises and flows through a pipe and then flows through another condensing coil of pipe which sits in a tank of water. This cools the mixture and separates the oil from the steam (now water). The oil is lighter than water so it floats and the 20 litres of oil are skimmed off for the secondary distillation via the Turners' Strath Steam engine.

Meanwhile, the old 'cook' of used leaves is removed from the pot and once dried, can either be used to restoke the furnace for the next mixture, or spread under the tree plantation as mulch.

## **Running the steam engine**

After the initial distillation the eucalyptus oil is a light brown colour. The five hp Strath Steam 'Liberty' engine generates the steam to turn this brown oil into another vapour mixture, which is then cooled again through a small



**The relocated and restored MacGillivray post office, which houses the Emu Ridge collection of memorabilia related to eucalyptus oil and its production, and bushcraft souvenirs for visitors.**



The black pot above the furnace shed roof is filled with leaves and water, then the steam mixture flows through the pipe to the right and down through a condensing tank.

condensing coil. This secondary distillation removes the initial impurities (such as tannin) and the oil now emerges as a pure, colourless liquid, which is simply bottled and sold. It takes about five kg of leaves to produce 50 ml of oil, and the Emu Ridge oil is sold in 25, 50, 100, and 500 ml bottles.



**PO Box 56, Beveridge,  
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*Trenchers too, for use at dinners.  
I make and mend both tub and cask,  
And hoop 'em strong, to make them last.  
Here's butter prints and butter scales,  
And butter boards, and milking pails . . ."*

*(often quoted Cooper's  
sign of early 19th century)*



*"As other people have a sign, I  
say just stop and look at  
mine! Here Beveridge  
Cooper\*, lives and makes  
Ox Bows, trug baskets and  
hay rakes.  
Sells shovel, both for flour and corn,  
And shawl, and makes a good box churn,  
Ladles, dishes, spoons  
and skimmers.*



\*George the Cooper\* featured in EG 92

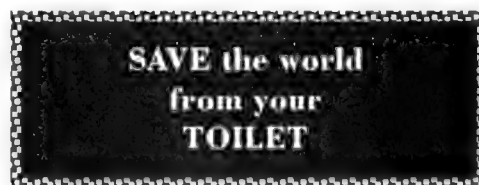
The steam engine is fired by one of Rod Muller's own horizontal fire-tube boilers, which produces steam at up to about 110 psi.

The Turners have a belt on their steam engine driving an old car alternator, which puts out about 25 amps, and charges a 12 volt battery bank of old ex-Telecom batteries.

They also have a 12 volt, 1250/3000 watt Magnum inverter, which allows them to run appliances and lighting on the property, but the steam engine is mainly used for purifying the oil and impressing visitors (it succeeds on both counts).

## Economics and the future

The future looks positive for Emu Ridge Eucalyptus Oil because Larry and Bev have a very positive attitude to developing their enterprise. They have an 'import replace-



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ment' product, so even the most pointy-headed bank manager should see its potential. They're also committed to a self-sufficient operation which is much friendlier to our fragile native ecology than traditional farming methods.

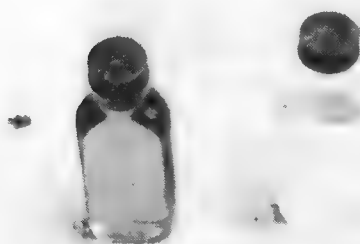
But Larry's not what you'd call a classic 'Greenie'. In fact, he might even cringe at the thought of his farming mates calling him one. Over 20 years of various jobs from shearing to deck-handing on fishing trawlers, Larry seems to have developed a common sense, lateral approach to problems and opportunities on the family farm. "I was kicked out of school at 14 — they didn't have time to corrupt me," he laughs.

Larry recognises that traditional reliance on grain, sheep and cattle isn't very diverse, and the distillery business is now expanding so well that he hopes to give up these three traditional farming methods altogether in the next few years.

That's quite a turnaround for a family farm in one generation, but farming plantations of native trees and shrubs, free from pesticides and fertilisers, is a lot more impressive than pumping the soil full of artificial chemicals, scraping it back with ploughs every year, and endlessly compressing the topsoil with cloven-hooved animals.

"At the moment we're producing 4,500 litres of oil per year, and production is doubling every year. In the near future we plan to farm native 100 per cent," says Larry.

• *Emu Ridge Eucalyptus Oil* sell oil by mail, and also copies of Bev's wonderful little recipe book, which has been reprinted three times and costs only \$5 plus postage. For a price list, contact Larry or Bev at PO Box 299 Kingscote, Kangaroo Island, 5223, South Australia. Phone (0848) 28228.



The bottle of eucalyptus oil on the left has been through the initial distillation, and retains impurities such as tannin, while the bottle on the right has passed through the secondary distillation thanks to the steam engine.

## Uses for eucalyptus oil

Eucalyptus oil is one of the most useful and versatile products Nature ever provided. Many people know that it's a superb vaporising agent for clearing heads foggy with cold and flus, but its other uses are astounding. Here's a short list borrowed from Bev Turner's excellent book of eucalyptus oil recipes (see below for ordering details).

**Eucalyptus oil is:**

**A natural disinfectant for cleaning:**

- floors
- toilets
- tiles
- brass
- ovens
- plastic and vinyl etc.

**A deodoriser**

**An agent for washing clothing and woollens**

**A spot and stain remover which can remove**

- grease
- oil
- lipstick
- blue tack
- tar
- beet root
- egg and grass stains from soiled clothing and carpet
- sticker marks
- chewing gum
- paint, ink and biro marks.

**A natural antiseptic which is good for:**

- burns,
- abrasions and cuts
- acne
- relieving insect bites
- repelling insects
- mouthwash
- hand and skin cleaner
- bath oil
- soothing muscular aches and pains
- training oil.

**In the workshop, eucalyptus oil can:**

- clean paint brushes
- remove tar and floor stains
- act as a penetrating oil for seized or rusted parts (like WD-40).

**For animals, eucalyptus oil can:**

- remove fleas
- treat fly strike
- clean pets.

# Van Raders Of The Lost Art Of Self-Reliance

**René and Lorraine van Raders wanted to try permaculture, but all they knew was what they read in some books. Now they teach it and conduct tours through their property. This is their story.**

**by René and Lorraine van Raders**

*Malanda, Queensland.*

**I**T'S OVERCAST, drizzly and muddy, and we've just got the turkeys in from the road for the second time today. It's a good day to ponder our involvement with permaculture and organic growing. We live on a one-hectare rural residential property on the Atherton Tablelands in Queensland. We are 750 metres above sea level, and about 80 kilometres inland by road from Cairns. The property is a former dairy farm that was cleared of rainforest about 60 years ago. One of our neighbours is still dairyfarming, but most are rural residential owners. A few have some fruit trees or a cow, but most have huge lawns. Permaculturists are rare up this way.

We first came here when our son Daniel was born, five years ago — we blew in with Cyclone Joy. Before that, we'd been on the road of self-discovery for many years, experiencing different ways of life around the world. It was

definitely a very important part of our journey, and we'd returned to Australia knowing we wanted to do something 'different' that would also make a difference. The property belonged to René's parents. They asked us to mind it while they went for two months to Western Australia. We fell in love with it, and on their return we negotiated to buy a share.

Five years ago, the property was the same as our neighbours — it took eight hours to mow it with a ride-on! Now it's a veritable jungle and we mow only a tiny area, mostly using geese. Looking back, it seems hard to believe how much we've achieved. We remembered our first field day mostly for its scorching heat and knee-high trees (and as you can imagine, their accompanying shade). Having a modest pee on the property was out of the question — our neighbours could see us from far and wide. Now we can be invisible from each other from only metres away!

Our qualifications for the task of living off the land were not remarkable. Seven years working as a manager for McDonald's (yes, I admit it), and a similar time sitting



**In June last year the van Raders' property was well watered by all the rain ("hence all the washing still on the line," they say).**

behind a word processor don't seem obvious prerequisites to organic farming. However, these facts have been valuable in teaching — if we could, then anyone could. Just one month before starting out on our new adventure, we attended our first tree-planting lesson in Townsville, and were unfortunate enough to be selected to plant the first tree. We say unfortunate, because we weren't sure whether to take the plastic bag off first!

However, many years travelling overseas with a backpack had taught us how few material possessions we needed to be happy. That was certainly a useful starting point. As well, we liked reading and studying, so we began there. Through reading such influential books as *The One Straw Revolution* and *Natural Farming and Gardening in Australia*, we became convinced that the organic approach was possible and desirable. After six months of learning we were able to start telling Mieke (René's mother) a few things (instead of her telling us), and we persuaded her to throw out all the chemicals. Now, only five years on, we've made some valuable mistakes, and enjoyed some great success. And we're sure plenty more are on the cards!

About four years ago we stumbled across *Permaculture One* in the library. We were fascinated and frightened by its technical nature. Then we found *Permaculture Two*, which we devoured with great interest. Three years ago, Bill Mollison taught a local course. The cost was much more than we could then afford. We had

read the above two books and had just bought *The Designer's Manual*, so we felt superfluous about attending, and the course was not so well timed because Kane (our second son) was due at about the same time. In the end however René went along, partly convinced by realising that as a certified graduate we could then teach what we knew and recoup the cost of the course.

## Life-changer

What a life-changer the course turned out to be! It soon became obvious that we'd dipped into the books for what we wanted and missed some of the very interesting and essential details. In particular, we realised that self-sufficiency wasn't enough; what counted was being active in the community and being active agents for change. The course had been very entertaining and fun, but more importantly it helped us take on some challenges we might otherwise have avoided.

We joined TREAT, the local tree-planting group and one of the most successful in Australia; LETS, the local bartering system for which René is a trustee; WWOOF, (Earth Gardeners will be familiar with this travellers' organisation); Landcare, for which René is the treasurer; and the National Park Volunteers, where we've begun to appreciate our native ecosystems. We also became much more active in our local sustainable-living group, in which we both became office-holders. We have attended seminars,



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**The van Raders' mandala vegie garden in 1993.**

council meetings and visited other gardeners and environmentalists. We not only gained many benefits but also enriched our lives immensely.

The only trouble is that we have less time for our garden, but as a true permaculture creation it's growing along quite nicely anyway. When we first started, we naively thought we'd plant one of everything. Now we know how impossible that is, but we still have amassed a huge selection of species. Being on the Tablelands, we can grow both a good selection of temperate fruits (apples, pears, peaches and so on), and also tropical fruits such as lychees, custard apples, jaboticabas and others, including many rare species. We also grow bush tucker species, both local and from further afield, and we have a huge range of herbs and unusual tropical vegetables. This mish-mash of plants has settled down in a design that incorporates a teaching garden (with tours), an experimental garden (we conduct trials on what works for Malanda so we can consult more effectively), and self-sufficiency, with surplus for sale. Already we have far more food than we can eat, and it's only going to become more prolific!

## Teaching

We have learnt that teaching others the things we've found out is a top priority. This year we are running five two-week courses, and have developed a correspondence course that explains permaculture ideas and principles in more detail for those who can't manage the two-week course. (This correspondence course takes about a year to complete). We started advertising courses as soon as René completed the course with Bill Mollison, so that we wouldn't chicken out. Since then each course has surpassed the previous. We're committed to attending courses run by others to keep our courses up-to-date. Lorraine has just

attended the Earthcare course in Crystal Waters, Queensland, where an emphasis on group learning uses some of the very exciting new accelerated-learning techniques to teach permaculture.

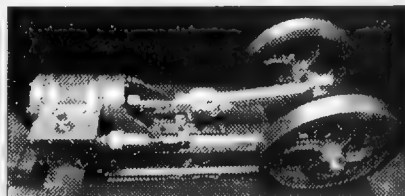
Did you know that drinking water is essential for brain health? And that it's now recommended that children be allowed to bring water bottles into the classrooms to help learning? Did you know there are very simple exercises that can help you learn better? There are many revelations about how the brain functions, and many traditional ways of learning can be greatly improved. Our courses use many of these new techniques — for example people retain much more when they are having fun. We have an information-packed course which uses a variety of learning methods, all of which are fun. We have found that course participants have a wealth of skills and knowledge that we can draw upon, too, and it's also fun to find the talents! Courses are definitely a mine of information for us.

Of course we continue to improve the garden and orchard. Here it seems we correct one mistake after another,

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**Back in the beginning: a nearly bare block in 1988.**

but the garden is very forgiving. Perhaps you would like to learn from some of the mistakes we made. One of our very first was not erecting suitable fencing. It was very quick to throw a few rolls of chicken wire around the boundary, but if you count the time spent chasing animals, patching up neighbourly relations, and the number of animals lost to cars or dogs, some time fixing a proper fence in the first place would have been well worth it. We have finally secured a section of the garden against bandicoots and poultry (bandicoots in this part of the world are common and very destructive), but the boundary fence seems no obstacle to the geese and turkeys — they seem to have a death wish!

Another mistake was planting fruit trees all over the property. This has left us with a huge grass problem (or a challenge) which can't easily be tackled by animals or machines because of all the trees. However, in true permaculture style, we're making the best of it. We've let the grass grow nice and tall; thus providing a wonderful wildlife habitat, soil conditioner, plant shelter and mulch. Bit by bit we're converting the grass to herbs and groundcovers to establish an area like we should have done in the first place.

By using cardboard and newspapers we've kept the grass back from most of the important trees. Planting trees all around the property has also limited our use of heavy machinery for completing earthworks like swales. Luckily we've had some wonderful wwoofers who have liked a bit

of hard work. We dug some trenches and ponds, and these hold good amounts of water. We even had a swim in the first good storm this year, and we gladly catch all the neighbours' water run-off.

In the vegetable garden we also made lots of mistakes. The first year we made raised beds just before our dry season and killed nearly everything for lack of water. After two years we finally figured out that the weather isn't the same all year round, but none the less is sort of predictable! We now plant winter vegetables towards the end of summer, and tropical vegetables at the end of winter, so they are at their peak when the weather suits them best.

We now only plant trees with the wet season, and stop planting before we run out of water. This is also because we do not irrigate our orchard, and timing is critical.

We have realised that small, well-tended gardens with access paths will produce much more than large untidy ones. It's just so hard to overcome our untidy natures; having two young children means things are usually pretty messy anyway. The beauty of permaculture gardens is that when you tend them they bear accordingly, and when you neglect them they still produce far more than you can eat!

At times there has been a lot to learn very quickly. However it has also been one of the most fun and challenging things we've done so far. We would highly recommend permaculture and returning to the land!

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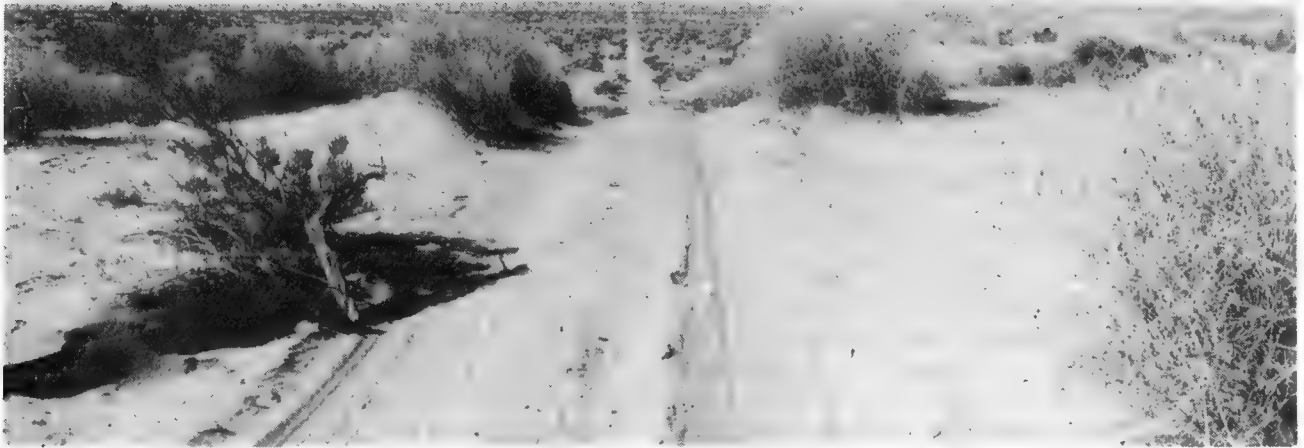
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# Surfing The Sand Dunes Of The Simpson Desert



by Alan Thomas Gray  
*Trentham, Victoria.*

“**T**HE car feels like a mother ship slowly sailing over the waves — I wouldn’t want to stray too far from the ship’s lifeline.” Judith muttered this to me on about the third day of our crossing of the Simpson Desert in June 1995, and it summed up exactly how the four of us felt, as we topped another of the 1100 sand dunes.

Judith and I love Australia’s Outback desert country, and Tane and Harry have either inherited a similar feeling, or had it forced on them by regular trips Outback. Crossing the Simpson Desert through the geographical heart of Australia was something we’d daydreamed about for several years, and part of the fun was the months of research, preparation, and slow assembling of all the right gear and safety equipment for a self-sufficient wilderness desert trip. I used to keep Judith awake at nights while I read “just one more chapter” about the Aboriginal water holes dotted through the desert, or descriptions of the native animals which live in the Simpson. The Simpson is the largest parallel sand dune desert in the world, and its 170,000 square kilometres make it as large as England and Wales.

One of the essentials for researching this sort of trip is buying a South Australian Desert Parks Permit. This \$50

kit allows you to travel and camp free in any of South Australia’s desert parks, and the fee goes towards maintaining the outback park system. The kit also includes excellent Westprint maps and a handbook which give great details (except for Aboriginal history) about these remote areas. You can buy the Desert Parks Permit by contacting the South Australian National Parks and Wildlife Service in Adelaide or Hawker, or else you can buy it over the counter in Birdsville, Oodnadatta, or at Mount Dare Homestead on the western edge of the desert.

Part of the fascination of the Simpson Desert is that it seems to live up to people’s classic stereotype of a desert being simply a sea of never-ending sand dunes. That’s not really the case, but it’s often photographed from this perspective, and in the popular images of the desert, the orangey-red dune tops seem like waves about to break.

The Simpson lies in the far north-east corner of South Australia, and the far south-west corner of Queensland, and to reach it we set off from Trentham in Central Victoria, travelling via Adelaide, and then on to the frontier town of Coober Pedy halfway from Adelaide to Alice Springs.

## Uranium and US bases

On the way to Coober Pedy we stopped briefly at Pimba—a roadhouse outside Woomera at the turn-off to the Roxby Downs Uranium Mine. This is the largest uranium

mine in the world and is a glaring reminder of the hypocrisy of Australian politicians who make loud noises about French nuclear tests, yet encourage Australian uranium producers to sell their yellowcake to the French and Canadians. Once the Roxby yellowcake is road-freighted to Port Adelaide, and shipped to Canada for processing into uranium oxide, there is no way of preventing it from appearing in French nuclear bombs, despite the so-called safeguards and inspections of the toothless, and questionable International Atomic Energy Agency.

Roxby has the largest uranium reserves in the world, and it's an interesting neighbour of the Narrungar early warning US satellite base, which put Australia on the map of nuclear targets. What a cosy pair of installations!

These days the staff at the Pimba Roadhouse near Woomera are friendly, but I remember stopping there in 1983 to buy a snack on my way to the Roxby Downs Uranium Mine Blockade. The old codger behind the bar — Spud — didn't like 'Greenies', so he threatened to blow my head off with a shotgun. I didn't hang around for a second warning!

Some 26 km north of Pimba on the Stuart Highway, the rocky gibber plains give way to shallow valleys full of mulga and soft sand — perfect for camping.

There are several established camping sites as well, which is a relief because there's nothing but bare gibber plains from the Iron Lake 90 minutes south of Pimba, until you stumble across this camper-friendly vegetation.

Camping on a gibber plain next to a major highway isn't our idea of fun, and we spent a comfortable night with

a small campfire, and soft sand to sleep on.

The next day we headed for the opal-mining town of Coober Pedy. It's as rough as both Judith and I remember, but there's a certain charm about a town which has advertisements on the supermarket noticeboard listing the types of explosives you can buy. We splashed out that night and stayed in an underground motel, and the boys loved it. It's

**“A glass of red wine around the campfire in the middle of the desert a thousand kilometres from any city, with a dinner of campfire tucker, and millions of stars above a warm, still night — that's pretty hard to beat.”**

hard to find pleasant camping spots around Coober Pedy because the area's dotted with unmarked mine shafts, and the terrain is rocky, flat and bare. However, the next morning we passed a great possible camping area, which was 16 km along the road to Oodnadatta by a creek, just before the 'dog fence'.

### **Oodnadatta**

That morning was warm and the sky was cloudless as we headed across the Moon Desert towards Oodnadatta. This was really the start of getting off the beaten track, because the Moon Desert is virtually featureless. It consists of rocky gibber plains sitting on a bed of sandy soil, with hardly any vegetation of any kind. Late in the afternoon we arrived at the famous Pink Roadhouse in Oodnadatta — a friendly oasis, and our last supplies until Birdsville on the other side of the Simpson Desert.

For trips like the Simpson, you're supposed to tell the local police of your travel plans, so that if you don't arrive at the other end you hope they'll send out a search party. The local copper at Oodnadatta was a friendly bloke who wasn't at all interested in our car registration number, when we planned to reach Birdsville, or whether we had adequate water supplies or maps. He took one look at our Hilux, asked

## **Aboriginal History In The Simpson Desert**

Anthropologists believe that the Simpson Desert was one of the last areas of the Australian mainland to be occupied by Aboriginal people — mainly because of its harsh climate compared to more favourable areas. But early settlers mistakenly believed that the climate was too harsh for Aboriginal people to inhabit the Simpson continuously. In fact, five Aboriginal groups were the traditional owners of the region: the Lower Southern Aranda and the Eastern Aranda people, the Karanguru and Wangkamadla and the Wangkangurru people.

There were at least 18 permanent water wells in the Simpson which were the focal point of Aboriginal life in the desert. These wells sustained the people while the men hunted for animals, the women gathered seeds (such as the nardoo and the pigweed), and the children played or caught small birds.

The wells were also important mythological sites for Dreaming stories but most of the wells are now silted over through wind erosion and lack of maintenance. Gidgee trees provided timber for making digging tools and bowls, and constructing humpies (or wiltjas). The Aboriginal people began walking out of the desert from the 1850s until the turn of the century, attracted by tales of plentiful food supplies and easier life on white cattle stations and missions. It appears that, unlike Aboriginal people in most other parts of Australia, the Simpson Desert people left their traditional lands of their own accord, and were not forced off at gunpoint. By 1900 the last remaining tribal groups walked out of the desert, however, individual descendants of these people continue to spend time in the Simpson for traditional visits and ceremonies.



The firewood tied to our pack rack came from sites well before the desert so that the sensitive desert ecology was not disturbed unnecessarily.

us if we'd be sticking to the main tracks, and said: "Have a great time. You'll love it out there." His reaction was very reassuring in a funny sort of way, because up until then the occasional thought had popped into my head, like: "You're mad . . . taking your whole family through a desert . . . no other cars with you in convoy . . . what if someone breaks a leg, or worse . . . ?"

I felt greatly reassured by his casual attitude even though, if he'd asked me, I'd been ready to rattle off all the safety precautions and equipment I had on board (such as the hired Flying Doctor HF radio).

That night we camped just outside Oodnadatta surrounded by coolibahs, mulga and red gums, on one of the dry tributaries of a major river system. We had another lovely relaxing evening watching the stars over camp fire cooking, but the next morning was very windy. I woke up with Harry to find that Judith and Tane had gone for a walk. A few minutes later I heard a faint cry, which sounded like one of the many crows around about. But it wasn't. I called back, and eventually a very relieved Judith and Tane trotted out of the scrub. They'd got lost and had been calling for 20 minutes, but I hadn't heard them because of the wind.

In the hundreds of kilometres of identical creek banks along the flood plains of the river, they'd confused one, and ended up walking away from our camp. Judith said she'd had visions of me setting off back to Oodnadatta to find some Aboriginal trackers, but she decided that experts wouldn't have been necessary: she was convinced that Aboriginal school kids would have found her tracks immediately.

"The worst part is they would've found this dumb whitey, stumbling around in her knickers!" she cried. After

that little fright, we topped up our water supplies in Oodnadatta and headed up the Oodnadatta Track, and then turned off for Dalhousie Springs and the edge of the Simpson.

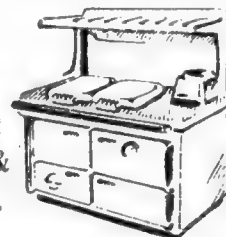
## Dalhousie Springs

Dalhousie Springs are warm pools, and a welcome soothing bath after the dust of a desert track. The Hilux has only leaf springs rather than coil springs, so it's a rough ride. We all glided about in the warm water watching the antics of thousands of corellas which perched in the mulga scrub surrounding the pools. Dalhousie is an important meeting place for Aboriginal people around the region, and for centuries has been the site of great parties, feasts and corroborees lasting many days. It's easy to see why, and no doubt more than a few romances have started around Dalhousie Springs.

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After lunch we were eager to get into the start of the desert itself before camping for the night. A couple of hours later, we were right into the bright orange desert sands, facing one sand dune after another, and a straight narrow track, called the French Line, which was bulldozed in 1962, and has been maintained solely by the tracks of 4WD vehicles ever since. This track became our compass for the next few days, and even though we camped less than 100 metres from the side of the track each night, it always felt as though we were thousands of kilometres from anywhere or anyone, and often it was hard to tell that there was a track a stone's throw from camp.

The first night's camping in the Simpson was very exciting because we were all by ourselves, relying totally on our own equipment and resources, and it was every bit as colourful, dramatic, and satisfying as we'd hoped. We saw only three or four other vehicles through the whole of the Simpson, and that was just how we wanted it.

We quickly fell into a routine for pitching the tents and getting dinner cooked on the campfire. We had collected firewood near Oodnadatta in an area which was literally covered in dead branches from the surrounding mulga and eucalypt. We tied these branches to the roof and used them for firewood through the desert. It's not a good idea to use any vegetation in the desert for firewood — the desert ecosystem is so fragile that stripping the desert of 'firewood' can only add to the erosion problems caused by wild cats,

rabbits, and the odd idiot 4WD owner who doesn't stick to the track but decides to make new tracks over sand dunes and salt lakes.

When we'd decided on a camp site, Tane and Harry would pitch their 'igloo' tent while I pitched the pyramid-shaped, bush touring tent for Judith and myself. We used the compressor to inflate the air mattresses, and then we'd dig a toilet hole, and get the campfire started. By this stage Judith would have dinner ready to cook, and we used our tripod to hang the camp oven over the fire. A glass of red wine around the campfire in the middle of the desert a thousand kilometres from any city, with a dinner of campfire tucker, and millions of stars above a warm, still night — that's pretty hard to beat.

## Into the sand dunes

We were crossing the desert from west to east, but some people cross it from Birdsville east to west. This is harder because the eastern faces of the sand dunes on the Birdsville side are steeper than the dune faces on the western side. The prevailing winds are from the west, so they 'flatten' the western sides, and 'steepen' the eastern sides, like a wave about to break. Apparently, a very real problem can be having a head-on collision with cars coming the other way, but the two cars we met coming from the east had bright orange flags atop five metre-high aerials — a sensible precaution which warns oncoming traffic of their approach.



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# Equipment and safety gear

On the way to the Simpson we camped off the Stuart Highway, and gave any new gear a thorough test before reaching the desert. We already had most of the gear we needed from previous family camping holidays but there are various safety items you need before even contemplating whether or not your vehicle, state of mind, and level of preparation is appropriate for such a remote desert trip.

I've listed all the equipment we took with us separately, and it reads like the inventory of a huge emporium: how did we ever get all that gear into our Hilux, let alone decide this was the basic minimum we needed? In fact, we didn't take just the basic minimum. We took what we thought would make for a comfortable family holiday with two small children, rather than the absolute necessities with no room for comfort.

Over the years we've developed our own preferences for taking or doing without particular gear, and sometimes boasting about how little gear you take on a camping trip is more to do with impressing your friends with how ascetic you are, than it is to do with the sensible principle of 'travelling light'.

The single most essential equipment for a trip like this is a 4WD vehicle in excellent mechanical condition, with appropriate spare parts. It should also be a high-clearance 4WD, because a low-clearance 4WD like a Subaru or Suzuki, simply won't make it. This doesn't mean you need a new 4WD. I've seen photographs of convoys of 1960s style Land Rovers successfully crossing the Simpson. However, if your 4WD is old, it needs to be well-maintained, and you need to carry extra spares, such as a water pump. However, you don't even really need to own a 4WD. If there are six of you together, you could hire a Long Wheel Base Land Cruiser in Adelaide, for \$120 per day (that's \$20 each plus fuel per day), and because such a vehicle is designed to

carry 11 people, you'd have plenty of room for all your gear.

A flying doctor radio is probably the next essential piece of equipment. We hired one in Melbourne for \$300 for the month, and found it extremely easy to use. If we'd had an emergency, we could have called one of the flying doctor bases dotted around the edges of the Outback.

A fire extinguisher, a winch and a power jack are the other pieces of safety equipment which set a remote desert trip apart from other camping trips. A normal high-lift jack won't work in sand dunes, because it sinks into the sand — even on a large base plate. A power jack is a large thick 'balloon' which inflates under your car via a hose to your exhaust pipe. The exhaust fumes pump up the bag, and raise the car off the sand so you can change a flat.

## Water and fuel

You should allow six litres of water per person per day. We took six 20-litre plastic gerry cans of water for the four of us, and this was plenty. We're quite careful with our water use — mostly because we rely on tank water at home — so it wasn't hard to minimise our water consumption. We did, however, encourage the boys to drink lots of water throughout the day, because even though it's winter in the desert, children especially, need to keep up their fluid levels in this environment.

You should also allow for 50 per cent higher fuel consumption than normal through the desert in four wheel drive with a heavy load. We used 92 litres of diesel to travel 667 km from Oodnadatta to Birdsville, but four cylinder diesels (such as ours) are much more fuel-efficient than four or six cylinder petrol vehicles. Our fuel consumption was 13.8 litres per 100 km for this part of our trip, and about 11.5 km per 100 km on the highways. The rest of the safety and camping equipment we took is listed at right.

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## Camping Gear

- ☐ Pyramid Tent
- ☐ Igloo Tent
- ☐ Double air mattress
- ☐ Single air mattresses
- ☐ Doonas
- ☐ Sleeping Bags
- ☐ Foam sleeping mats
- ☐ Fluoro camping light
- ☐ Cigarette plug battery adaptor
- ☐ Leopard lantern
- ☐ Both Leopard chargers
- ☐ "Miner's" head lamp
- ☐ Shovel
- ☐ Fold up hack saw
- ☐ Pillows
- ☐ 2 X small folding chairs
- ☐ Water syphon
- ☐ 6 X 20 litre water gerry cans
- ☐ Insulated water jug
- ☐ 3 X stacking food storage crates with lids
- ☐ Large metal container „(for heating water)
- ☐ Blue tarp
- ☐ Soap/pot scraper
- ☐ Solar shower
- ☐ String
- ☐ Extra tent pegs
- ☐ Screw-top plastic barrels
- ☐ Toilet paper
- ☐ Toiletries
- ☐ Clothes
- ☐ Strong rubbish bags
- ☐ Maps
- ☐ Hats
- ☐ Sunglasses
- ☐ Books
- ☐ Tapes/CDs
- ☐ Snorkel
- ☐ Pack Rack
- ☐ Silva compass
- ☐ 2 X spare tyres
- ☐ 2 X spare tubes
- ☐ Shovel
- Spare:*
- ☐ -Radiator hoses
- ☐ -Fan belts
- ☐ -Fuses
- ☐ -Battery (in marine case)
- ☐ -Filters
- ☐ -Ignition key
- ☐ Hitchmasters
- ☐ Rope
- ☐ Carpets/mats (for breakdowns in soft sand)
- Tool Box:*
- ☐ -Adjustable spanner
- ☐ -Multigrips
- ☐ -Spanner set
- ☐ -Pliers
- ☐ -Pointy-nosed pliers
- ☐ -Screwdriver set
- ☐ -Hammer
- ☐ -Hack saw
- ☐ -Cold chisel
- ☐ -WD 40 or similar
- ☐ Pocket inverter
- ☐ Spare wheel nuts
- ☐ Jumper leads
- ☐ Ute liner
- ☐ Small gerry can of diesel (long range fuel tank already fitted)
- ☐ Tyre gauge
- ☐ Fuel tank repair glue
- ☐ Electrical wire
- ☐ Fencing wire
- ☐ Insulation tape
- ☐ Repair manual
- ☐ Luggage net
- ☐ Axe
- ☐ Hose clamps
- ☐ Spring clamps
- ☐ Soldering iron

## Car Spares/Recovery Equipment

- ☐ First Aid Kit
- ☐ Fire extinguisher
- ☐ Hand winch
- ☐ Snatch Block
- ☐ 2 X D shackles
- ☐ 'Big red' air compressor
- ☐ Power jack
- ☐ Tyre change/repair kit
- ☐ Flying Dr radio
- ☐ UHF radio
- ☐ GPS, Ute Canopy

## Cooking Gear

- ☐ Food containers
- ☐ Esky
- ☐ Camp oven
- ☐ Long-handled tongs
- ☐ Short-handled tongs
- ☐ Cooking Tripod
- ☐ Cutlery
- ☐ 2 X sharp knives
- ☐ Whisk
- ☐ Egg slicer
- ☐ Masher
- ☐ Scissors
- ☐ Garlic crusher, Peeler
- ☐ Tea strainer
- ☐ Pizza tray
- ☐ Cast iron pot
- ☐ 2 X mixing bowls
- ☐ Juicer
- ☐ Strainer
- ☐ Folding BBQ plate/fry pan
- ☐ Large serving spoon
- ☐ Swiss Army knife
- ☐ Can opener/corkscrew
- ☐ Plates and bowls
- ☐ Cutting board
- ☐ Carving knife
- ☐ Wooden spoon
- ☐ Plastic wash trough
- ☐ Billy, Alfoil
- ☐ Coleman double fuel stove
- ☐ Plastic gerry of shellite
- ☐ Matches
- ☐ Newspaper
- ☐ Toasting wire
- ☐ Saucepan & lid
- ☐ Jaffle iron
- ☐ Grater, Sieve
- ☐ Tea towels
- ☐ Snap-lock plastic bags
- ☐ Damper-making pot
- ☐ Dish-washing bowl
- ☐ Oven-proof gloves
- ☐ Natural fibre brush

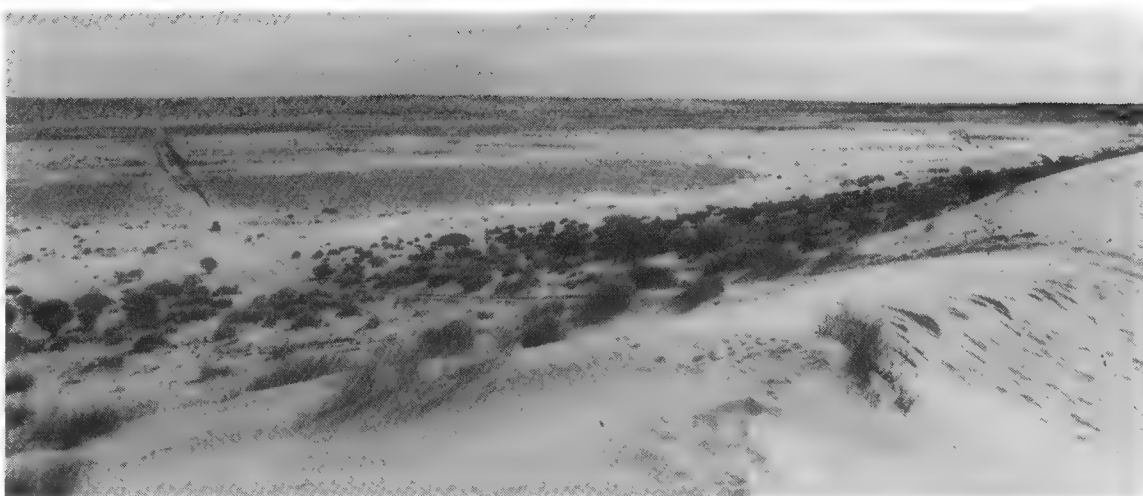
## Food

- ☐ Bread crumbs
- ☐ Plain & SR flour
- ☐ Brown rice
- ☐ Sugar, Pasta, Tea
- ☐ Powdered milk
- ☐ Soy milk, Cereal
- ☐ Asian noodles
- ☐ Garlic, Sultanas
- ☐ Salt/pepper
- ☐ Sea weed
- ☐ Tins of beans
- ☐ Tins of corn
- ☐ Potatoes, Onions
- ☐ Cabbages, Carrots
- ☐ Parsnips
- ☐ Reconstituted tofu
- ☐ Soya sauce
- ☐ Olive oil
- ☐ Dehydrated peas
- ☐ Vegemite
- ☐ Jam, Cheese
- ☐ Dry biscuits
- ☐ Dressing
- ☐ John West minced chilli
- ☐ Butter
- ☐ Oranges
- ☐ Matches
- ☐ Tomato paste (in tubes)
- ☐ Yeast
- ☐ Spaghetti sauce
- ☐ Terriyaki sauce
- ☐ Coriander
- ☐ Salada/Vita wheat
- Dinner Ideas*
- ☐ Potato & Lentil burgers
- ☐ Noodles & stir-fry vegies
- ☐ Baked potatoes/vegies and salad
- ☐ Nutmeat burgers
- ☐ Nutoleen satays
- ☐ Vegetable pancakes
- ☐ Pasta & tomato sauce
- ☐ Pasta & cheese sauce
- ☐ Rice & vegies
- ☐ Potato au gratin
- ☐ Pizza, Frittata
- ☐ Rice burgers
- ☐ Roast potatoes
- ☐ Roast carrots
- ☐ Macaroni
- ☐ Baked pasta
- Lunches*
- ☐ Baked bean jaffles
- ☐ Cheese & tomato jaffles
- ☐ Salada/Vita wheat sandwiches
- ☐ Soup & damper
- ☐ Pancakes
- ☐ Soup: noodle & vegie, tomato, French onion

## Kids Entertainment

- ☐ Toys
- ☐ Books
- ☐ Footy
- ☐ Walkman
- ☐ Tapes
- ☐ Camera
- ☐ Drawing paper
- ☐ Scrap Book
- ☐ Coloured pencils
- ☐ Sun block

This view from the top of 'Big Red' shows our vehicle (the speck at centre left) racing across the desert floor in another unsuccessful attempt to top the dune.



One mob had even tied an old surf fishing rod to their bull bar as a flag pole.

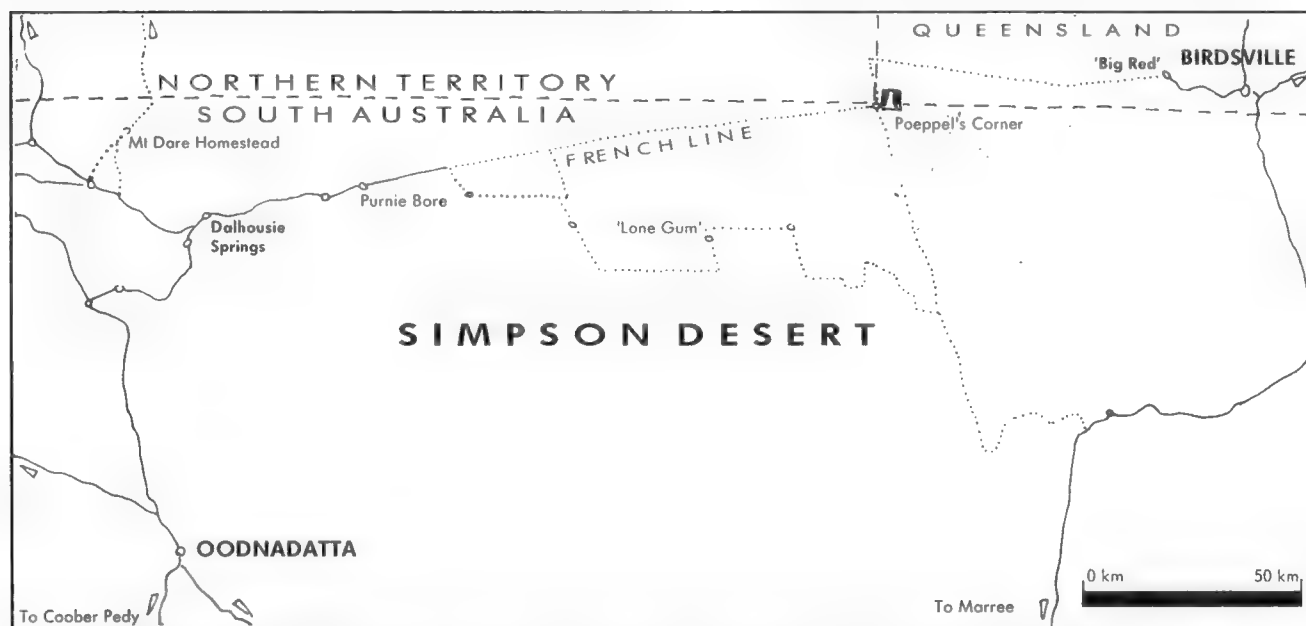
The next morning soon after setting out we encountered the wreck of a camping trailer which someone had foolishly tried to cart over the Simpson. This reminded us of how hard the sand dunes might be, and the very next sand dune was so steep and soft, compared to the others since Dalhousie Springs, that we finally put the Hilux in high range four wheel drive. We reduced our tyre pressure from 48 psi to 20 psi, and we stayed in four wheel drive, averaging about 20 to 25 kmh for the rest of the trip across the desert. We were exactly 109.7 km from Dalhousie Springs at this point.

There were about four dunes which needed two or three attempts, but other than that we found that quick gear changes down to second and first, then maintaining momentum and speed across the soft sand, was the best tactic for

getting the nose of the Hilux up to the top of each dune, before we eased off completely on the accelerator, and let the car glide down the other side, slowly enough so that the deep corrugations didn't jolt us about in the cabin too much. The corrugations on both sides of the dunes were often deep and rough — like a staircase — and this made it hard to get a good run-up at the dunes. The sand on top of the dunes was often so soft that you'd sink to your shins when you got out.

Someone else counted the 1100 sand dunes in the Simpson desert — we took their word for it, and often all we could see was the next line of sand dunes a kilometre in front of us, separated by the flat, desert floor between the parallel dunes. However, each 'valley' between dunes seemed different to the previous one and we never got bored with the landscape. It seems such a remote, difficult landscape that it's hard not to feel in awe of Nature's work out here.

Some people think the Outback must be dull and



Queensland, the Northern Territory and South Australia meet in the middle of the Simpson Desert. Most travellers cross the desert from Oodnadatta in the far north of South Australia to Birdsville in the far south west corner of Queensland.



**The Birdsville pub is the symbolic end to a west-east crossing of the Simpson Desert.**

lifeless but that's far from the truth. If you travel in the 'winter' months of April to October, you avoid the extremes of heat, and enjoy warm sunny days. The nights can be cold, but a warm sleeping bag, swag or tent are all you need. We find that a foam insulation mat under our air mattresses keeps the cold from coming from the ground overnight through the air mattress.

## Flora and fauna

The plants and animals of the Simpson are one of the highlights of the region. There are extremely rare species, such as stands of waddy trees (*Acacia peuce*) which grow 20 metres high, look a bit like pine trees, and can live to 500 years or more. The waddies are at the tall end of the Simpson flora scale — occasional heavy rains can produce a mass germination of wildflowers throughout the desert. Four types of plant account for nearly half the plant types found in the desert: daisies, saltbushes and bluebushes, grasses and plants with pea-like flowers (*Fabaceae*). Clumps of lobed spinifex dot the desert floor and dune tops, and their straw-colour contrasts beautifully with the bright red-ochre of the desert sand. Mulga and the Georgina gidgee (stink tree) are also common.

The range of birdlife in the desert is staggering, and somehow the birds seem to survive in spite of the feral cats, which evict rabbits from their burrows and move in. It's sad to see so many feral cats and rabbits in such a remote part of Australia's desert heartland.

Twenty four species of mammals are believed to inhabit the Simpson, but most are either shy or nocturnal. For example, the marsupial mole is quite common but is not often observed. This extraordinary creature (*Notoryctes typhlops*) is blind and has no ears. It burrows extensively and has a tough 'shield' to protect its nose. In some places dingoes and camels are quite common. There are 22 species of lizards, including the thorny devil and the perentie, which is Australia's largest goanna.

## Approaching Birdsville

It seemed that just as we were settling into desert life, we were approaching the end of the solitude. On our eighth day camping in the Outback

### Trip distances: Cooper Pedy to Birdsville

| Location          | Trip Meter Reading (km) |
|-------------------|-------------------------|
| Cooper Pedy       | 0                       |
| Oodnadatta        |                         |
| (Camping Spot)    | 201                     |
| Stevenson's Creek |                         |
| (Camping Spot)    | 363                     |
| Dalhousie Springs | 407                     |
| Purnie Bore       | 477                     |
| Camping Spot      | 488                     |
| 4WD engaged       | 527.7                   |
| Camping Spot      | 606                     |
| Knoll's Track     | 635                     |
| Camping Spot      | 669                     |
| Poeppel's Corner  | 679                     |
| QAA Line Start    | 700                     |
| Rabbit Fence      |                         |
| (Camping Spot)    | 775                     |
| Eyre Creek        | 794                     |
| Birdsville        | 868                     |

we finally came over a sand dune to confront an absolute monster of a dune, which rose straight from the desert floor like a 90 metre-high tsunami. This was the famous 'Big Red' — the largest sand dune in the entire desert and — believe it or not — the last one before Birdsville. It signals the physical and psychological end to the Simpson crossing, and it's quite a confronting challenge in itself. We took five attempts at scaling Big Red, and failed each time. On the fifth attempt, Tane and I raced at the dune in high-range four wheel drive at about 65 kmh, and gradually, as the sand and gravity slowed our progress, we realised we'd have to take one of the less steep side tracks — the so-called chicken run.

A four cylinder diesel Hilux simply doesn't have the acceleration to top Big Red straight on, but it was an exhilarating end to our desert life, as we pulled out the compressor on the other side of the dune, pumped up our tyres, and potted off across the gibber plains to the Birdsville Pub for a cold drink.



**After we crossed the Simpson, we set up a stall selling *Earth Garden* books and magazines at the Todd Mall Sunday craft market in Alice Springs.**

# Season

# by

# Season



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## Dirt, glorious dirt

One of my earliest garden memories is making mud pies. Raymond (he lived next door and wore red sandals that I coveted) and I had been given our lunch under the mango tree. Unfortunately it was the wrong time of year for mangoes. We ate our lunch and then tried shaking pepper on the tails of passing sparrows. My mother had told me if you put pepper on a sparrow's tail it would not fly away. I know some people prefer salt, maybe she didn't want her lawn salted over. The sparrows were too fast, however, so we made mudpies instead. They were good mudpies, gourmet mudpies. I mixed mine with raspberry cordial and he mixed his with . . . you know, I'd forgotten this until now . . . he was proud of how high he could squirt. And then we mixed in salt

**"Dirt is lovely stuff. Good dirt smells like chocolate."**

and pepper and let them dry in the sun before turning them out.

I've had my fingers in the dirt ever since. Dirt is lovely stuff. Good dirt smells like chocolate. Or maybe I just like chocolate as well as dirt so I think they smell the same. I get uneasy when I'm too far away from dirt, for example when I'm more than two storeys up in a building, or in an air-conditioned room or anywhere that's just smooth grey walls and carpet. One of the lovely things about dirt is that it's alive with tens of thousands of microflora and fauna, enzymes, beetle larvae and the like. Dirt changes. It was dull yellow when I came here twenty-odd years ago. Now it's all different colours, depending on how much and what

has decomposed there since.

We live in a valley, so there's nowhere you can look out the window and not see dirt or rock or cliffs. There's a bloody great mountain of it front and back. It's a secure feeling having all that dirt around. We live in a granite house, and one day, a millennia or four away, it too will be dirt.

Winter is a great time for dirt. The grass shrivels away from the hills so you can see their shapes, round and skull-like on the tableland above us. But they are beautiful skulls. You can see the dirt in the garden too. When you pull something out of the garden, a space stays there for a few months, unlike summer when it fills up with weeds or parsnip or calendula seedlings. (There's a legend that your husband will always be faithful if you've got calendulas flowering, and once you've had them flowering in your garden it's hard to get them to stop.)

All roots are best in winter. The cold softens them and makes them sweeter. Beetroot always tastes insipid in summer. You need winter for real beetroot richness. I love winter salads of beetroot: pick them, peel them (beetroot peel can be bitter, and so can carrot skin) and grate them. There is no need to cook them, though you can if you like. Add an equal amount of grated carrot, about the same amount of finely chopped parsley, and toss with a good, very mustard-like garlic dressing. Sometimes we add walnuts or toasted pine nuts or a few sesame seeds or hunks of steamed new potatoes dressed with sesame oil and sesame seeds. You don't need much of either.

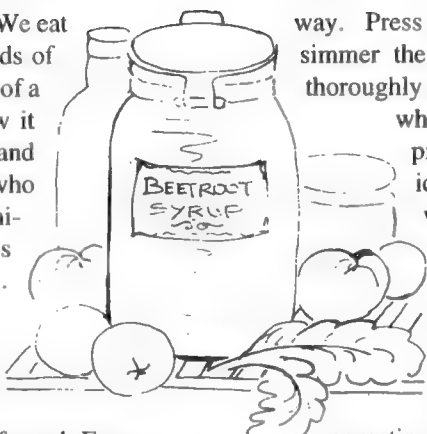
Winter is a great time for roots too. We eat a lot of properly cultivated roots like spuds, beetroot and carrots, plus some wilder harvests like dandelions, dock, burdock,

kangaroo berry, kurrajong and bracken. We eat bracken just for fun — there are hundreds of wild edibles around here — but it's a hell of a lot easier to harvest the garden. I know it sounds disgusting, but even Bryan eats it, and he's definitely a spuds-and-vegies man who grudgingly puts up with an absolute minimum of raw or rabbit food. And bracken is quick to make and is always in the garden.

## Beetroot syrup

In the days before cheap sugar, beetroot syrup was often used as a sweetener. In fact sugar beet — the source of much European sugar — is a form of beetroot. Just peel the beetroot, chop it, cover with water and simmer till thick, adding water from time to time. The beet syrup should be very sweet and syrupy. You can use it instead of sugar in almost anything except making meringues, which turn tough with the extra water. I love using it in cakes, and kids love it too, because it turns the cakes bright pink. Bryan isn't sure about pink cakes, but you don't notice the colour in chocolate cakes anyway. Keep the syrup in a jar in the fridge. Toss it out if it ferments, or if interesting flora grows on top, or if it smells bad. But usually it lasts for months or even years.

Watermelon syrup used to be prepared the same



way. Press spare melon pulp through a sieve, then simmer the liquid very gently until thick. Strain thoroughly through muslin to get rid of impurities which make an odd taste, and you have a pale pink, very clear, good syrup. It's good on ice-cream too, and a dash is lovely in cold water.

We never get enough carrots. This is partly because we eat a lot of them, but also because our wombats love them even more than we do. I hide patches round the garden and congratulate myself that I've got away with it this time, and sometimes we even do get a few meals of carrots from them. And then the scavengers descend and clean up the whole lot in a night. They go for the tops first, then grub for the roots. Maybe I should try planting one carrot at a time around the garden, but that's an awful lot of work, and if the wombats couldn't find them I would probably forget where I put them too. Chook wire over the patch stops them grubbing up the roots, and even if their tops get eaten they (mostly) grow again. The tops look a bit odd though. While I'm on the subject, corn nibbled by wallabies and wombats keeps growing as long as it's only attacked once or twice, thank goodness. If it didn't survive, we'd never get any corn either.

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## Carrot dog biscuits

A good use for carrots going to seed is to make carrot dog biscuits. Don't bother to peel them for the dog unless you plan to eat them too — they're not bad! Grate your carrots, and beetroot, and any going-to-seed celery stems. Add an equal amount of rolled oats. Mix with an egg to moisten, form into small, thin flat cakes and bake until crisp in the oven. Keep in a sealed jar.

## Wild roots

Wild roots can be good. Not *very* good; if they were very good they'd have been domesticated. But they are not bad either, and they are fun for kids. Kids love wild harvests. I used to get Edward and his mates pulling up bracken roots to roast every time we had a barbecue. (They're too sophisticated to do it now.) The bracken roots didn't actually taste much and they were incredibly fibrous, but we did get rid of a lot of bracken.

A lot of young tree roots are sweet. Don't eat them if they're bitter or smell like almonds, and grubbing them up doesn't make the tree particularly happy. It is good for emergency food though. Dock roots taste like they're good for you, just like dandelion roots. Dock and burdock roots are diuretic and laxative, and are supposed to clear the body of toxins, and I suspect, of many other things. Dandelion root is used as a liver stimulant and is prescribed for gout, eczema, pimples, gallstones, and sometimes rheumatism. They are also a laxative and a diuretic. Don't eat them before you go to bed unless you have an ensuite or a bucket. (A man I know has a lemon tree outside the bedroom window.) However one meal or two won't give you diarrhoea. Dock, burdock and dandelion roots taste best baked in cider with a dab of butter till tender — a waste of good cider and butter.

## Celery root

I love celery root. It used to be a laxative, a diuretic, a digestive remedy and so on, but unlike the others it really tasted good — a sort of super-celery taste. Try digging it, and clean it well. Grit does not add to its healthful or culinary properties. You can peel it, grate it, add it to chicken stock, or even simmer it in water until tender. Thicken it with cream and the yolk of an egg if the chooks are still laying,

and serve it hot in small dishes with a sprinkle of nutmeg. If you can't bear to dig up the root, you can make the dish with celery stalks, but it won't have the deep pungency and nuttiness of the root.

Sunflower roots can be used in the same recipe, though of course the taste is quite different. And unless it was coincidence, they produce extraordinary quantities of gas. Spuds taste best in winter too. I don't know why. Maybe we just need all that carbohydrate to keep us warm. Spuds are usually fresh in winter.

## Cooking with potatoes

**How to boil them:** Scrub your potatoes — don't peel them. The peel will rub off when they are cooked, and keeping it on helps keep the potato firm. New potatoes should be plunged into boiling water. Just cover old potatoes with cold water and bring to the boil *very* slowly. Add a little lemon juice or peel to old potatoes to keep them white. When they are almost done (about 15 minutes of boiling) drain off the water and put the lid on. This way the potatoes finish cooking in steam, not water, and they won't explode.

**Cooking new potatoes:** Cover your potatoes with cold water, bring them very slowly to the boil, turn down the heat and simmer until they are *nearly* cooked. Now put a lid or two tea towels over the saucepan and let them finish cooking in their own heat. This method gives firm new potatoes, without ragged split skins and fuzzy overcooked patches at the bottom.

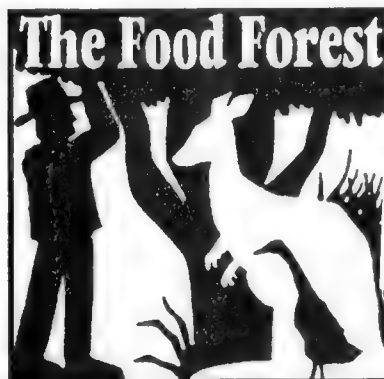
**Dried potatoes:** Grate the potato (peeled or not according to preference), and spread as thinly as possible on alfoil in the sun. They should dry in a day or two. Use them to thicken stews and soups.

**Potato bread:** This is lighter and stores better than ordinary bread. It used to be a great favourite in colonial days. You need:

- four cups plain flour, wholemeal or white
- one cup potato flour (pumpkin flour can also be used) or very dry mashed spuds (don't add water or butter, and drain very well)
- a teaspoon of dried yeast
- water.

Place the yeast in the warm water with a little flour.

Leave until it bubbles. Now combine the flours, and add the yeast and enough water to make it bind. Knead for at least 20 minutes. Leave to rise in a warm place — I cover it with a tea towel and put it near the stove or on the windowsill. Punch it down, and let it rise again to double its bulk. Bake in a hot oven



### SPRING SHORT COURSES

|                                              |         |
|----------------------------------------------|---------|
| Planning your property                       | 29 Sept |
| Fruit and nut growing                        | 13 Oct  |
| Bush tucker                                  | 27 Oct  |
| Organic vegetable growing/Free range poultry | 24 Nov  |

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till the top is brown and springs back when you press it. The sides of the loaf will have shrunk back from the sides of the bread tin.

**Medicinal spuds:** About five per cent of people with arthritis improve on a solanacea-free diet, so try avoiding potatoes, tomatoes, capsicums, chillies, eggplant and similar, and see if it makes a difference. Potatoes have also been grated, warmed and used as a poultice in arthritic joints. Potato water, made from the starch-rich juice from grated potatoes, has been used to help diarrhoea, especially in babies. This potato starch also used to be a popular starch for clothes.

**Spud aphrodisiacs:** The British first regarded potatoes as the devil's crop, because they grew from tubers rather than from seed and were not mentioned in the Bible. Anything not in the Bible had to be sinful, and if it was sinful it had to be sexy. Potatoes were hailed as an aphrodisiac ("Let the sky rain potatoes," implored Shakespeare's Falstaff in *The Merry Wives of Windsor*), and were supposed to turn regular eaters into hermaphrodites. It took several hundred years for the British to realise that however they ate their potatoes, they had very little effect at all on the libido. They turned to tomatoes as aphrodisiacs instead.

## Baking pottery in a tin

If you're having a bonfire, baking pottery in a tin is fun for kids. Get them to dig up some clay, and make sure they wash it well to get rid of bits of dirt. Now make *small* things — a ring, beads (with a hole in the middle before they are fired), or a thin bowl. Buttons are fun to make — I love pottery buttons.

Get a tin and open the top, cutting the lid only half off so it can be pushed down again. Punch small holes all over the tin, put in the pottery items, push the lid closed and put the tin into the middle of the bonfire. (You can also put it in the firebox of your wood stove before you light it and plan to have it going for a day or two.) Leave the tin to cool in the ashes and take it out the next day. The pottery inside should be hard. It'll be brittle too, but that doesn't matter for beads. Oil them a couple of times or paint them.

## Bare dirt in winter

Dirt doesn't stay bare long in summer. It fills up with weeds or 'volunteers', which are plants you didn't deliberately plant but which you don't mind having, like forget-me-nots or parsnips. We even had a volunteer cucumber plant this year; it was the first time we've ever had a self-seeded cucumber. It was an apple cucumber, and it grew very prolifically too. Then the new wombat discov-

ered them. They were growing in the bed by the apple tree, and she was munching windfall apples when she tried a cucumber . . . this means that we'll have to go back to growing the long green ones. From now on, apple cucumbers will end up down a wombat gullet.

Every time you pull a cauliflower in winter you get bare dirt, and it stays bare till the weather warms up. (You could of course plant it with onions, or leave the stalk to sprout again and go to seed and so inhibit next season's weeds, but that's a red herring.) If you don't want your bare dirt to start breeding weeds, and you want to feed it for next season's crops, here are a few ideas to try.

- Cover each bare patch with autumn leaves, weeds, old corn cobs, then water with compost or manure water, or even urine. It's just extra nitrogen to start the stuff breaking down.

- Plant winter clover between caulies, broccoli and other vegies you're going to haul out in winter. It will spread and fill the crevices and help feed next year's crops.

- Cover the space with stones. Stones retain moisture, retain heat, and insulate the soil. Dark stones absorb more heat than white ones which tend to reflect heat. Adding stones will make your crops mature faster, but use big rocks if you can. Little ones are a pest if they get into grass you intend to mow, and are hell to remove if you decide you want another mulch instead, or if you want to dig there. They will decay, but you'll have to hang around for a millennium or six to watch.

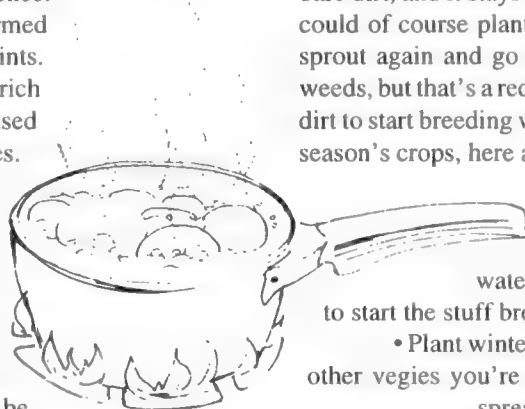
## Winter wood ash

If you have a wood fire you'll have wood ash, and if you've got wood ash some bright spark (no pun intended) will decide to stick it on the garden. This can be a good thing, as they say in *1066 and All That*. It can also be a bad thing.

*Never* put a thick layer of wood ash on anything except down the dunny. It will kill all soil life below it, and possibly kill the plant, even if it's one that likes alkaline soil. It is also very difficult to remove wood ash once you've put it on the garden. Ashes are hard to rake out when they are dry, and claggy and difficult to move when wet. Be wary of a helpful friend who cleans out your stove, and having heard that wood ash is good for the garden, spreads it around. Friends like these can devastate the roses and lemon trees.

It can also be difficult to remember just what tree or vegetable area had a dose of wood ash. It's best to start at one end of the garden with your ash pail, and keep working to the other end. Don't go through the garden again with ashes until next year, or at least not for six months. If you still have lots of ashes you'll have to think of some other use. *Don't* add wood ash to compost — it can precipitate nitrogen loss.

Never use wood ash on acid-loving plants like potatoes, blueberries, strawberries and most other berries,



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Never use wood ash on acid-loving plants like potatoes, blueberries, strawberries and most other berries,

azaleas, camellias, rhododendrons or daphnes. Even plants like citrus that don't like very acid soil can end up with an iron deficiency if they have too much wood ash. Go cautiously. But a thin sprinkle (like icing sugar on a cake) before planting can prevent black spot on broadbeans. Wood ash can also be scattered through the lawn every six months. A thin circle of wood ash around cabbages and broccoli will stop slugs and snails.

Wood ash is most effective on good loamy soil. It can devastate clay soils by clogging them even more. The nutrients may leach too soon on sandy soils. Wood ash is very alkaline. It is about the equivalent of 50 to 75 per cent lime. It can also be rich in trace elements and calcium, phosphorus and potash. Generally hardwood trees are richer in trace and other nutritional elements than softwoods, but there are other enormous variables. Fruit-tree wood, for example, may contain about 60 per cent potassium, while pine ash has only about six per cent. A word of warning — potash leaches out of wood ash very quickly, and old wood ash that has been left out in the rain may have almost none.

## Other ashes

Avoid the ashes and smoke from treated wood or from painted wood unless you know the paint is safe. (Old paints may still contain lead, while modern paint may contain plasticisers.) Briquette ash is rich in sulphur and

iron which can be good if your soil is deficient in these; however it is possible to add toxic quantities. Go cautiously.

Soot from chimneys and stoves can also be scattered round the garden. Again the operative word is scatter. Don't heave great lumps around. Pretend you are scattering carrot seed. Soot can also be rich in trace elements and potash, but it can also be carcinogenic — for you, not your plants. Always wear gloves when handling it, and try not to inhale soot dust. If you want to be cautious, wear a mask.

## Winter bones

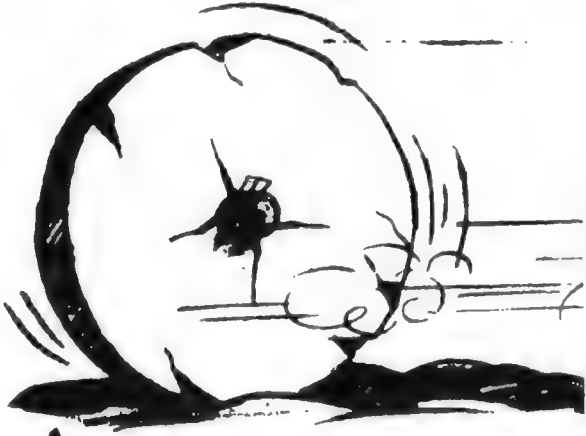
Winter is a good time to stick bones in the garden, because the stove or fire is going and you need heat to break down the bones. Bones are rich in calcium, magnesium and phosphorus, and contain between 1.5 and four per cent nitrogen — quite good feeding for the garden. You can harvest bones from your own diet or from the butcher, or for that matter from the paddock or the side of the road.

Don't shudder. If I had to choose between my bones lying on the side of the road or feeding someone's vegies, I'd choose the latter. In fact I hope I'll feed a tree or two when I die. Five dollars worth of worth of bones will give you more nutrients than five dollars worth of artificial fertiliser.

Unfortunately bones are also tough. You can crush them, but only if you have a hammer mill. If you put them through the coffee grinder you'll get splinters, which can be deadly in the garden. The easiest thing to do is dry bones in the oven. Just leave them at the bottom (the coolest part) of the oven when you bake a cake. It will take three or four bakings or a couple of days in a slow-combustion oven to make them brittle. Then the bones can be crushed with a hammer. Much of the nitrogen will be lost, and it's still a lot of work. You can also throw bones in the fire (some people love the smell, some hate it). Most of the nitrogen will also be lost, though a fair proportion of what remains will be stored in the ashes.

You can also cover the bones with wood ash in a drum with a lid. Now add water *slowly* (it will tend to float on top) so it dribbles down and fills any gaps. Stop when the top layer of ash floats. Put the lid on and leave for six months. The bones will rot in the ash and the whole mess can be mixed with more water and spread thinly on the garden. A warning though — this will be *very* alkaline. Too much can lead to iron deficiency and other problems.

I prefer to stuff my bones (sorry: the bones I've gathered) in the middle of the compost to 'clean' them. They soon get tossed on the garden with the compost, still mostly intact, but after a year or three of sunlight they rot down. Some people find bones in the garden unaesthetic. I prefer to regard them as a sort of domestic archaeology: ah yes, that was the roast we had at Grandma's, that was rooster casse-rolé (alas, poor Rodney, he was an excellent rooster in his prime), and that was the dead cat we picked up beside the road. But to each their own.



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# Ethical Investments Top \$100 Million

## New Australasian Guide Explains The How And Why Of Ethical Investment

**E**THICAL investments in Australia and New Zealand have grown from \$30 million in 1990 to \$100 million in 1996, according to the editor of a newly-released guide to such investments, Mr Trevor Lee. Trevor guided a team of seven researchers in producing the book, which lists every possible ethical investment available on the market, after explaining the how and why, and jargon terms of ethical investment. The 40 page, A4 sized handbook, *Ethical Investments in Australasia*, costs \$7.50 in Australia, and has been donated by the authors for sale through various 'Green' outlets throughout Australia, including all Wilderness Society shops, and Money Matters in Auckland. (The booklet is also available on the Internet for nothing at <http://www.eepo.com.au/perma/ethical>).

"The book profiles 28 ethical investment organisations, and is aimed at concerned investors, who wish to actively search out investments which yield solid social and environmental benefits, at the same time as earning market returns," says Trevor. Trevor is an architect specialising in passive solar design. He and his family live in Canberra and as well as being a director of Australian Ethical Investment Ltd, Trevor served as Editor of *Solar Progress* magazine from 1989 to 1995.

### Sample Investment

The following section is a sample of the 28 ethical investments described in the handbook. It looks at the well-respected, community-minded Maleny Credit Union in Queensland.

### Maleny and District

#### Community Credit Union Ltd

28 Maple Street, Maleny, Qld, 4552, Australia; phone: (074) 942144, Facsimile: (074) 943363.

Contact: Elaine Green

This socially responsible community based credit union operating in Queensland was established in 1984. The group grew out of an Earthbank ethical investment conference attended by members of the local Food Co-op through which

the credit union was ultimately formulated. The growth rate has been strong given the small population base of the Maleny District. The credit union contributes to the community by donating money to funds like the Co-op Education Fund, Community Environment Fund and the Community Assistance Fund.

### Investment Criteria

The credit union has a charter which aims to improve the quality of life and prosperity of the local community in a sustainable and environmentally sound way, whilst fostering social responsibility. Any loan must be for a purpose deemed by the credit union to be positive for the local community and/or the environment.

### Investments

Loans are given to members for a variety of purposes. The credit union tries to help low income members buy houses or land. Other loans have been to assist members to start or improve their own businesses. These include jewellery making, a tofu factory, an avocado farm and an organic pasta producer.

### Financial Data

**Size:** Deposits are \$8.8 million with a membership of over 3,000.

**Terms:** All new members are required to purchase five \$2 shares which are repaid on cancelling membership. Joint membership is regarded as two members. The credit union offers three types of account:

1. Savings Account, 2 Xmas Club Account, and 3 Term Deposits.

Term deposits are a minimum of \$500. Interest can be paid monthly, quarterly, half yearly, or on maturity, at investors' request. If the interest is paid monthly by cheque then rate paid is 0.25 per cent lower than the published rate.

**Projected Returns:** Savings accounts earn 2.0 per cent under \$1000 and 3.0 per cent over \$1000. Xmas Club accounts earn 3.5 per cent, paid on minimum monthly balances and credited annually in December.

**Term Deposit rates are:** 3 months 6.25 per cent, 6 months 6.50 per cent, 12 months 7.00 per cent, 24 months 7.25 per cent, 36 months 7.25 per cent.

The rates offered fluctuate with financial markets and are subject to change from time to time. Once a term deposit is made, however, the interest rate is fixed for that investment.

**Fees:** No entrance or exit fees except in the case of pre-redemption of a term deposit where a minor re-calculation of interest is made.

# *In My Tropical Garden*

by **Liz Sinnamon**

*Kenilworth, Queensland.*

**S**ELF-SUFFICIENCY means different things to different people. During the past few years one of my aims has been to become self-sufficient in the garden. I intend that not only will my garden supply all my fruit and vegetables, but will also largely maintain itself.

I'm self-sufficient in fruit now, because most of the trees planted eight years ago are bearing. These include apples, lychees, figs, citrus and custard apple. I was quite excited recently when I harvested my first macadamia nuts. It's been quite a long wait for some crops, but what a great feeling it is to enjoy homegrown food.

With a minimum effort, the vegetable garden produces a wonderful variety of vegetables and herbs throughout the year. After years of enriching the soil with organic matter, it is dark and friable. I only need to add a small

***"I become more aware each day of Nature's perfection."***

amount of compost, plus a little chicken and cow manure when I plant a fresh crop. Four years ago I developed a food forest. This is completely self-sustaining, with ground and tree legumes providing all the necessary nutrition. I harvest sweet potatoes, ginger, bananas, arrowroot and herbs from this part of the garden.

## **Compost**

Compost is fundamental in a self-sufficient garden. It is also a great way to recycle unwanted material. I have three compost heaps. Number one is the heap being built up. Kitchen scraps, spent plants, unwanted weeds, small amounts of newsprint, grass clippings, and leaves make up the bulk of material used. At regular intervals I add chicken manure from the chook shed, and a bag or two of cow manure. (My cow and calf provide this). Yarrow and comfrey leaves are



added to speed up decomposition. The compost is ready to use in two to five months depending on the season. (Compost breaks down more rapidly in warmer weather). Number two bin consists of finished compost which I use as required. Number three bin is a finished heap in the process of decomposition.

Poultry manure, rich in nitrogen, and an essential plant nutrient, is also an important fertiliser, as is cow manure which adds microbes and organic matter. Because I only have a dozen chickens they would have to work double shifts to provide the amount of poultry manure I need. Therefore I have to buy in one 40 kg bag of poultry pellets a year when I fertilise all 33 fruit and nut trees! I lift the mulch and scatter the pellets around the tree, right out to the edge of the outside branches. I spread a half-bucket of compost on top and replace the mulch, adding more if needed.

The chooks are allowed to range free for most of the day, fertilising the lawn and adding their droppings to shrubs and trees as they forage. Every few weeks I visit the cow paddock and pick up a few bags of cow manure. I break up the pads either by hand or with the mower, and use it on the compost heap or in the vegie patch.

## **Composting toilet**

My home-made composting toilet also supplies rich fertiliser for the garden. The system is simple and efficient, working in a similar way to the compost heap. It consists of two 40-gallon steel drums. Each drum has a tight fitting lid to keep out flies, with several holes in the bottom to allow fluids to drain out. Each drum sits on a few rocks to allow easy drainage.

I tip the waste matter, which has sawdust added, from my bucket toilet into the first drum every day or two. I add a few vegie peelings, plus once a week a shredded leaf

or two of comfrey and yarrow. When the drum is three-quarters full, I close it off with a layer of grass clippings and leave it to mature. This takes about 18 months. I begin the process again with an empty drum.

The finished product smells surprisingly sweet, is friable, and looks very similar to 'ordinary' compost. I use it around trees and shrubs. I haven't yet had the courage to use it on the vegetables, although it would probably be quite safe to use anywhere in the garden.

Mulch is also a good fertiliser, providing lots of food for worms and soil micro-organisms. When the grass is growing 'at a rate of knots' during warm weather, I get heaps of clippings every time I mow.

I rake them up after they have dried for a few hours, and use them around the trees, and in the vegie garden.

If I use them when damp or wet, they can form a solid mat that water can't penetrate.

I gather up all the twigs and sticks that fall to the ground from the gum trees, and put these onto a 'burn' pile. I add any large prunings and odd bits of scrap timber, and burn the pile every few weeks.

The ash is high in potassium, and I add it to the compost heap. I still need to use lime because heavy rainfall in the tropics can leach the soil considerably, although after

adding lime regularly over the years, I now only use only one 40 kg bag of lime throughout an entire year.

## Habitats

A few years ago, I had trouble with pests in the garden. I regularly used pyrethrum, derris dust, and dipel, all

non-toxic preparations. Native shrubs and trees, plus areas of the garden that have been allowed to 'grow wild', are now habitats for many insect predators. I only use white oil and soapy water on the citrus now and again to control any outbreaks of scale and sooty mould.

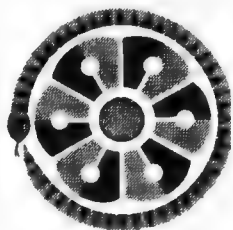
As the natural ecology of the garden has developed, and the insect population has become balanced, I rarely have problems with serious insect damage. As I continue to develop the garden using natural, organic methods, I become more aware each day of Nature's perfection.

It is only when humanity interferes that problems occur. This year I have also noticed a big increase in my green and brown frog population. In Queensland, excessive use of toxic pesticides and herbicides is putting frogs in danger. In early evening, they leave their moist hiding places to sit in various spots in the garden, enjoying moths and other insects.

Self-sufficiency in the garden — I'm almost there!



**The chooks fertilise the lawn and add their droppings to shrubs and trees.**



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# Any Vegie Skeletons In Your Closet?

Earth Garden's founding co-publisher, Keith Smith, has written a superbly informative book on the history, use, and development of over 600 vegetable varieties. *Keith Smith's Classic Vegetable Catalogue* is jam-packed with 144 pages of fascinating insights: did you know that all carrots were once purple? In the following extract from his new book, Keith describes the Australian history of pumpkins, potatoes and corn.

by Keith Smith  
Epping, New South Wales.

## Pumpkins as big as buckets

"Melons and pumpkins thrive astonishingly" [at Rose Hill].  
—Newton Fowell, *Letter to his father, Batavia, 31 July 1790.*

**P**UMPKINS grew lushly in Australia and were a great standby from the very beginning of European settlement. In April 1793 Spanish botanist, Don Luis Nee, reported pumpkins in the convict gardens at Parramatta, west of Sydney Cove.

A pumpkin raised at the Hawkesbury River, north-west of Sydney, measured 35 inches [88 cm] in length, the *Sydney Gazette* reported on 14 August 1803. "Its species is a native of Rio de Janeiro, sometimes yields abundantly, but [is] generally tender and difficult to rear." As it was from Rio, this was probably a gramma.

At Kings Town (Newcastle), a vine growing by accident in a wheat field produced thirty-two pumpkins, "the smallest from 12 to 14 lb [4 to 6 kg] and others exceeding 28 lb [12.5 kg] weight" it was reported in May 1806.

Aborigines who helped farmers harvest their corn were rewarded with "a good feast" of boiled pumpkins (which they called pambucan) and sugar, said Surgeon Peter Cunningham (1827). "The black children absolutely dance and scream when they see one, pumpkin and sugar being their delight."

On the Hawkesbury River farms in 1830 "the chief

vegetable was the pumpkin" said Alexander Harris (1847). Some of those he saw were "as big as a large bucket".

In his lecture on horticulture at the Sydney School of Arts in 1835, Thomas Shepherd of the Darling Nursery said there were many varieties of pumpkin in Australia, "but the Rio and potato pumpkin are esteemed the best".

Pumpkins were among the most important vegetables grown in Australia, wrote 'Rusticus' (William S Chauncy) of Melbourne in 1855. "It grows to a very large size in this country," he said, "frequently exceeding one hundred pounds [about 45 kg] in weight."



## The Aussie Pumpkin?

Herbert J Rumsey, an experienced and well travelled nurseryman from the Parramatta area of western Sydney, proposed 50 years ago that the big, thick shelled slate grey cucurbits — Crown, Ironbark, Queensland Blue and Triamble — were different from any kind of pumpkins grown elsewhere in the world.

Rumsey called these "the Australian type of pumpkin". He put their origin down to careless seed saving in the early days, which allowed plants to cross-fertilise, after which the original types were lost. "From them, however," Rumsey wrote in *The New ABC of Australian Vegetable Gardening* (1944), "have developed Queensland and Triamble [Triamble], which are now the best representatives of the race."

These Aussie pumpkins are not like any of the big American pumpkins, such as Large Cheese and Connecticut Field (the orange 'Jack O'Lantern' type) or the French Potiron or Tours types. Blue Banana has a similar slate grey shell, but its shape is more like a Hubbard.

## Cornstalks and dungaree settlers

"Whichever way I looked I could see fields of the tall green Indian corn, with its tassel tops bending and waving under the fresh breeze that was sweeping over it."

—Alexander Harris, *Settlers and Convicts*, London, 1847.

**A**LEXANDER Harris was describing the "fine expanse of rich cultivated ground" he saw one day in 1830 as he looked down on the Hawkesbury River valley, north-west of Sydney.

Corn or maize was usually the first crop planted by the 'dungaree settlers', so called because they wore jackets and trousers made of cheap blue Indian cotton. These were the first farmers in the fertile Hawkesbury River area near Windsor and Richmond. What corn they did not eat was fed to the fowls and other farm animals, or ground up to make corn flour. Corn, potatoes and pumpkins were their staple foods. They ate hominy pudding made of hulled corn soaked in lye water and cornmeal 'johnnycakes' or 'doughboys', with salted pork if they had it. A roasted corn cob was called a 'Hawkesbury Duck'.

It was commonly said that the Hawkesbury settlers would sell their wheat crop for rum, drink the proceeds, and then live the rest of the year on corn. Harris maintained that, because wheat brought good returns, it was sold to buy tea, sugar, tobacco and clothing.

According to Peter Cunningham (1827), the first generation born in Australia were called cornstalks "from the way in which they shoot up".

Indian corn or maize was found to be a more suitable crop than wheat in the early years when the convict settlement at Sydney Cove frequently came close to starvation. The Irish convicts ground corn to make into 'stirabout', a kind of porridge.

"Indian Corn and potatoes seem to answer the best of any thing," the Reverend Richard Johnson wrote to his friend Henry Fricker in England in August 1790. If manure could be obtained, these might "turn to some little account," Johnson added.

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In November 1790 Captain Watkin Tench of the Royal Marines talked to James Ruse, a Cornish convict who had served his time, and had been given land by Governor Arthur Phillip to cultivate at Rose Hill (Parramatta) to the west of Sydney.

Ruse told Tench that he had planted wheat in May and June and maize in September that year, though he had not grown it before. In *A Complete Account of the Settlement at Port Jackson* (1793), Tench said corn flourished in New South Wales "beyond any other grain".

In April 1791, after a successful harvest, James Ruse asked to be taken off the government stores and was granted 30 acres (12 hectares) of land. In the same month, convicts who had pillaged the Indian corn crops at Rose Hill were punished by being chained together and made to wear heavy iron collars.

In March 1793 Don Luis Nee, a botanist who was visiting Sydney with the Spanish expedition of Alexandro Malaspina, saw corn growing on the banks of the Parramatta River. Alexandro Malaspina wrote that "Maize bears fairly well but without abundance or vigour", and said crops were variable.

### The corn raids

The Australian Aborigines developed a liking for the fresh, juicy corn cobs and many were to pay for this corn hunger with their lives. Not unexpectedly, the Aborigines regarded crops grown on their land as their property. When they raided the 'corn grounds' of the government farm at Toongabbie, near Parramatta, in March 1794, three Aborigines were shot dead and convict watchmen brought in the head of one of the slain men.

"From the quantities of husks and leaves of corn which were found scattered about the dwelling place of these people," said David Collins, "their depredations this season must have been very extensive." Twenty years later the Gandangara 'mountain tribes' joined with fierce warriors from Jervis Bay and swept down to feast on the ripening ears of corn at settlers' farms in the frontier district of Appin. In May 1814 a force of former New South Wales Corps troopers opened fire on a cornfield and killed an Aboriginal boy. The Aborigines replied with a shower of spears, killing a veteran trooper.

After further corn raids in 1816 Governor Lachlan Macquarie sent punitive expeditions to the Nepean River area, which resulted in the deaths of 14 Aborigines.

A century after the 'dungaree settlers' on the Hawkesbury, corn remained a staple food for battling farmers. "In corn growing districts," wrote William Clarson (1893), "many a young family live entirely on this during the short time it is in season."

• *Keith Smith's Classic Vegetable Catalogue* (144 pages, large format paperback) is published by Lothian Books, and is available at bookshops for \$24.95.

# Nature's antiseptic oil

**Leonie Bourke describes why there's a revival in interest in tea-tree oil — the natural antiseptic which has been dubbed 'the first-aid kit in a bottle'.**

**by Leonie Bourke**

*Cobram, Victoria.*

**T**EA-TREE oil is an effective bactericide derived from the leaves of the Australian native, *Melaleuca alternifolia*. It kills many bacteria and fungi. *Melaleuca alternifolia* grows naturally in only about 200 square kilometres in the north-eastern corner of New South Wales. In the wild it grows prolifically along swamps and water courses. The Bunjalong Aborigines who lived in this area used its healing properties thousands of years ago. The tribe treated cuts and skin infections by putting a layer of crushed tea-tree leaves over an injury, and then covering it with a warm mud pack. Captain Cook is believed to have first used the name tea-tree. Sir Joseph Banks collected samples of *Melaleuca alternifolia* on Cook's 1770 expedition, and the sailors used the aromatic leaves as a substitute for tea. They found it 'spicy and refreshing'.

Tea-tree oil was a popular bush remedy for septic wounds, infections, and throat and mouth conditions in the 1920s. In the 1930s it was scientifically recognised throughout the world. During World War II it was included in army and navy first-aid kits in tropical regions for the treatment of tinea and other fungal infections. However, a lack of sufficient quantities of the oil, and the development of synthetic antiseptics, including penicillin, replaced Nature's remedy in the post-war world. Its medicinal properties were rediscovered in the 1970s following an upsurge of interest in natural medicine. Today the production of tea-tree oil has become big business in Australia, and plantations have been established in various parts of New South Wales.

The essential volatile oil of the tea-tree is extracted from the leaves by steam distillation. It is clear to pale-lemon in colour with a pleasant, characteristic, nutmeg odour. The oil is sold in many countries throughout the world, and the Australian Tea Tree Industry Association certifies oil quality and the authenticity of its source. Tea-tree oil works better in an organic medium, such as when pus or dirt is present in a wound, than in a test tube. However extensive research has confirmed its antibacterial properties. Researchers at the University of Western Australia found the oil was active against *Escheria coli*, *Propionibacterium acne*, *Streptococcus faecalis*, and the yeast form of *Candida albicans*. In high concentrations it killed *Pseudomonas aeruginosa*.

According to Christine Carson of the university's

department of microbiology, there is anecdotal evidence that tea-tree oil was effective against cold sores and genital herpes. Ms Carson says the oil is a proven antiseptic and disinfectant, and a useful treatment for minor cuts, abrasions and pimples. She says it is particularly effective in the treatment of acne because it penetrates the skin. Some other antiseptics and disinfectants don't have this ability, she says.

Morton Walker, a "podiatrist turned freelance medical journalist", reported in *The Journal of Current Podiatric Medicine* in April 1972 that tea-tree oil permanently destroys foot odour, eliminates inflammation of corns, calluses, bunions and hammer toes, eradicates or improves symptoms of athletes' foot, improves tinea, and lubricates skin dryness of the foot soles, thus eliminating cracks and fissures. Researchers are investigating how tea-tree oil could be used for agriculture. It may have uses for delousing sheep, tick treatment, pest control, collar-rot treatment for orchard trees, and as a postharvest dip for stonefruit, strawberries, mangoes and other fruits.

As well as destroying bacteria, tea-tree oil acts as a mild local anaesthetic, making it useful to treat a huge range of ailments. It is available as oil or cream, and as a constituent in talcum powder, shampoo and conditioner, soap, toothpaste, hand and body lotion, deodorant, throat lozenges, lip guard, sunblock and an anti-itch dog shampoo. It is widely available in health-food stores and pharmacies.

Here are some uses for tea-tree oil.

**Cuts:** Dab on pure tea-tree oil.

**Cold sores:** Dab on pure tea-tree oil or cold-sore cream.

**Coughs:** Use pure tea-tree oil in a steam vapouriser, or inhale by sprinkling two to three drops on a bowl of boiling water. Rub chest with five drops 100 per cent pure tea-tree oil mixed with one teaspoon of olive oil.

**Arthritis:** Mix three to five drops of 100 per cent pure tea-tree oil with one teaspoon of olive oil or baby oil and massage deeply into joints.

**Blocked nose, sinus:** Sprinkle pure tea-tree oil on hanky or pillow and inhale. Alternatively, rub drops on palms of hands and inhale.

**Pimples, acne:** Dab on tea-tree oil three times a day, or apply tea-tree oil antiseptic cream.

**Sore throat:** Add three to six drops of pure tea-tree oil to warm water and gargle. Repeat up to three times daily.

Tea-tree oil is also an effective treatment for rashes and dry skin, psoriasis, impetigo, nappy rash, minor burns and sunburn, head lice, boils, muscle aches and sprains, mouth ulcers, tonsillitis, pyorrhoea, varicose ulcers, fungal infections, insect bites, warts, bad breath and smelly feet. With this impressive array of credits, it's no wonder tea-tree oil has been dubbed 'the first-aid kit in a bottle'.

# Pumping without fuel or tears: The Glockemann pump

**Ralph Glockemann has designed a remarkable pump that requires very little maintenance, no fossil fuel, and is a significant advance on hydraulic ram pumps.**

**by Alan Prowse**

*Wyndham,  
New South Wales.*

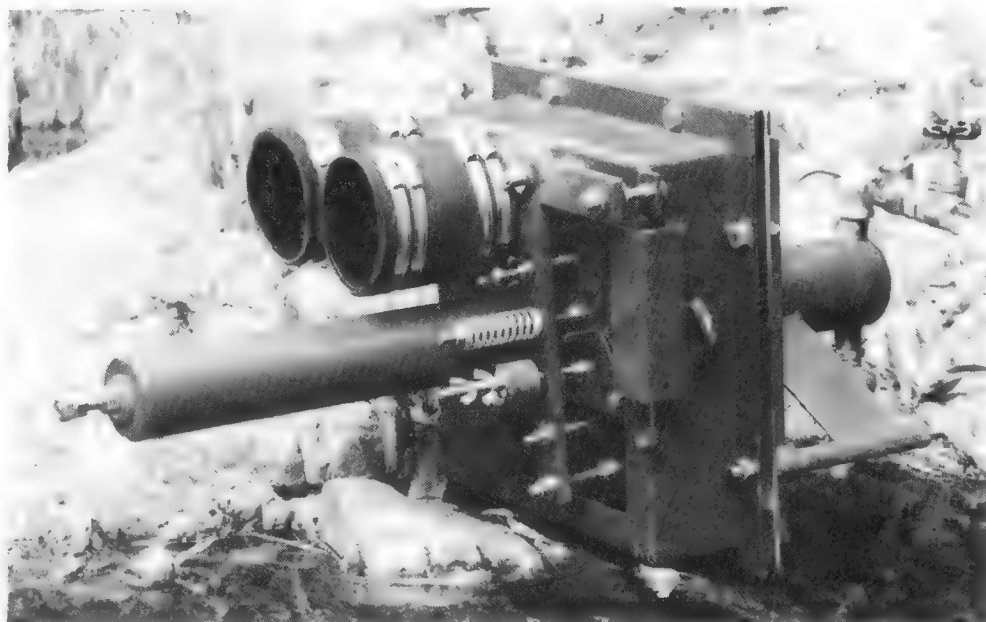
**O**N THE far south coast of New South Wales, inventor

Ralph Glockemann has become an identity. He designed a pump that uses the energy in small falls of water, as little as half-a-metre, to pump water to high heads, as much as 150 metres or more. No other water-powered pump can do this so reliably and with little maintenance.

Ralph became interested in harnessing the energy in falling water and using that energy to move water to where it was needed. He first experimented with the old hydraulic rams, and quickly realised their limitations. They need a large drop in the creek to operate successfully, and even in an ideal setting rams are finicky and unreliable. Somehow Ralph's inventor's intuition made him feel sure there must be a way to use the energy in smaller amounts of water falling short distances. He experimented with various ideas, then quite suddenly one evening the idea just flashed into his head. He built and tested prototypes in the creek on his property. After many changes and adjustments he was satisfied, and he quickly lodged a patent application.

## How it works

When I first found out about the Glockemann pump I was impressed by its simplicity. Water flows down the drive tube and into the diaphragm chamber (the main box-shaped body of the pump). From there it flows out through the exhaust valve, which is a small opening at the back. As the water moves through, its speed increases due to gravity. After about two to three seconds the accelerating flow triggers the exhaust valve which then slams shut. When the exhaust valve has closed all the water in the drive tube must

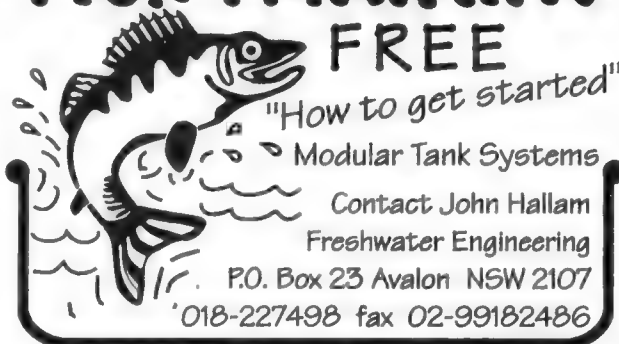


suddenly come to a stop. The pressure of all that water in the chamber and drive tube pushes on the rubber diaphragm at the front of the chamber.

Attached to the diaphragm is a metal 'diaphragm plate'. This in turn is attached to a simple piston pump. When the diaphragm moves, so does the plate and this works the piston. This piston forces water past a one-way valve and up the delivery pipe.

After the piston stroke, the water in the drive tube has used up its momentum, and the pressure in the diaphragm chamber relaxes, so the exhaust valve can spring open. When the pressure has dropped a return spring pulls the diaphragm and plate back — this of course pulls the piston back. When the piston is pulled back it draws water

## FISH FARMING FREE



past another one-way valve and into the cylinder, and so the pumping begins again. This is such a simple mechanism that often these pumps just start working on their own when first placed in position. However, there are a few simple adjustments to be made so that the pump is always operating at its best for each site. The most important is the throttle adjustment which is set when the pump has been installed and going. The throttle is a wing nut which can be turned by hand. It can be set on a powerful stroke every two to three seconds, or adjusted to a quicker and shorter rate of less than one stroke per second. The quicker setting is for when the creek flow is very low, such as during a drought.

There are two other adjustments which are set when the pump is installed and should not need to be changed. One is just to vary the spring force on the exhaust valve, and the other is a 'self starter' which keeps the pump going even when debris like leaves or twigs happen to get in the way and interrupt the cycle.

## Quiet

The Glockemann pump is very quiet. Most noise is from the swish of water from the exhaust valve. The pump is almost flood-proof if properly installed, because it is made of heavy-gauge galvanised steel and has few moving parts. The pump is chained into position when installed so it won't be swept away. As flood waters rise its weight keeps it



**Ralph Glockemann (left) and author, Alan Prowse, check a recently installed pump.**

sitting snugly on the bottom. The pump is fitted with a flood shut-off mechanism which is automatically activated by rising waters to prevent damage to the cylinder and to stop heavily silted water being pumped into a tank. When the rain stops and the water recedes, the pump only needs its strainers checked and its flood shut-off switch reset. The pump starts again without drama.

The Glockemann pumps work all day, every day. The only regular attention they need may be an occasional clean of the strainers. Even this may be unnecessary as the gentle backpulse usually keeps the strainers clear. They require little general maintenance, because they have so few moving parts and no metal-to-metal action. A small leather piston cup is the only part which may need replacing every nine months or so. The diaphragm rubber normally lasts for years and can be replaced with a tractor inner tube.

## Installing

When installing a Glockemann pump, you must first find the best possible site, which is fairly easy because they are so adaptable. The pump must have flowing water

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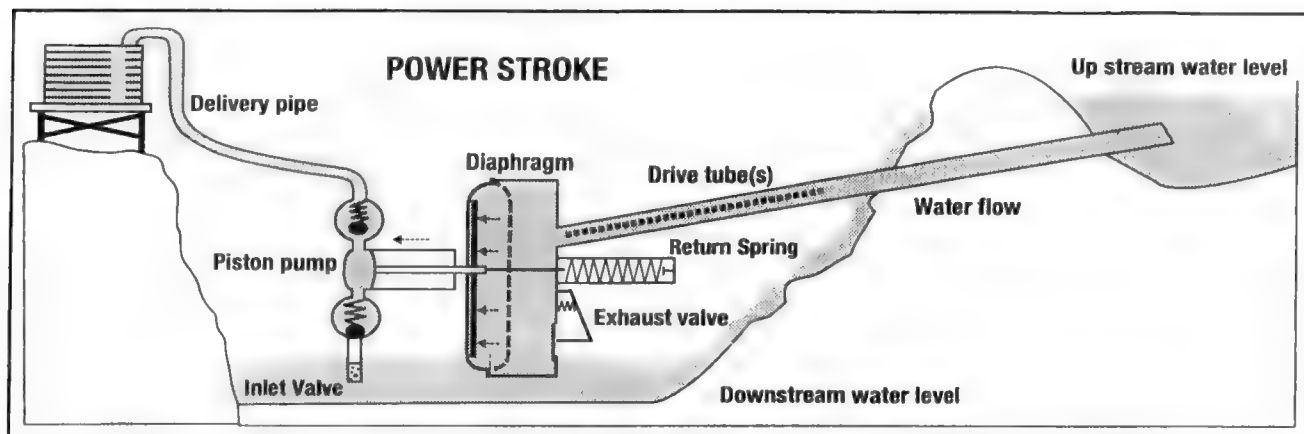
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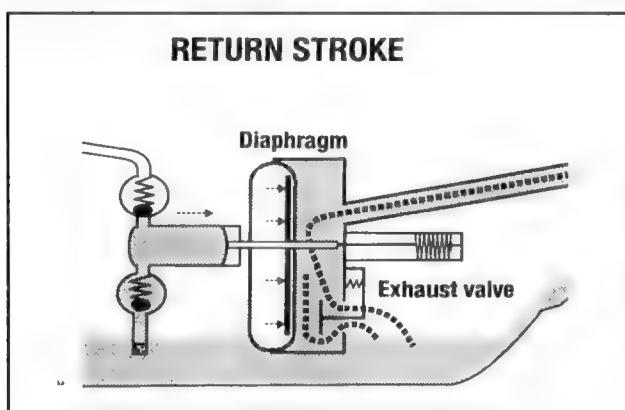
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## RETURN STROKE



## The working actions of the Glockemann pump, above and left.

purchase price compares favourably with wind, solar and other water-powered pumps. I have worked out that my Glockemann pump has paid for itself in less than three years in comparison with the purchase and running costs of a fuel pump.

Ralph Glockemann and his family company, which manufactures and sells the pumps, have sold units from Queensland to Tasmania. For more information about the pumps, contact Glockemann Peck Engineering, PO Box 357, West Ryde, New South Wales, 2114, telephone (02) 481 8860 or (02) 874 6009, fax (02) 481 8860.

to operate, although it doesn't need much. Because the pump works by using the energy of falling water you need to look for a 'drop' of at least 0.5 metres over a distance of about seven to eight metres or less. The 'drop' is measured from the water surface at the higher level to the water surface at the lower level.

Don't panic if you don't have a natural drop in your creek. Often it is easy to build a weir using rocks already at the spot, or with cement and sandbags. When looking for a site keep in mind that the drive tube doesn't need to be dead straight. Once you have worked out where to put your pump, it is quite easy to install because it doesn't need to be mounted on a concrete base like a hydraulic ram or a fuel pump. It just sits straight in the creek and is secured by a chain linked through special brackets on the pump.

How much water you actually get depends on these three factors: how much of a 'drop' you can find or build, how much water is flowing and how high you are pumping (it is the vertical height [straight up!] that matters here, not the distance to your tank).

## Value

A lot of 'alternative' technology is more expensive than the conventional choices. The understanding is that the products will provide long-term economy and other intangible benefits like self-reliance and a low environmental impact. A Glockemann pump is value for money. Its

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# The garlic Lawn

Maddy Atkinson astounded the neighbours when she dug up an expanse of lawn to grow garlic.

by Maddy Atkinson

Preston, Victoria.

**W**E DON'T have a lawn mower — not even a sheep! For the past year or so we haven't had a lawn either. Lawns are great when you're lounging around under a huge shady tree or when you want to lie down in the backyard and gaze at stars, but I've always bemoaned the urban lawn as wasted 'edible' space. I'd like to make my city home as productive as possible; it's just one way to satisfy that rural yearning, I suppose. So the days of the depressing strip of kikuyu-infested front lawn were numbered when I moved in. When kindly neighbours started giving me 'Jim's Mowing Service' leaflets, after pointedly mentioning how beautiful the lawn had been when old Mr Crane was alive, I knew it had to go. Since we had made all the available space in the backyard into vegie gardens, it was time to expand.

One day I was reminiscing with a friend about travelling around the United States, and it struck me that all the communes and communities I had visited had at least one thing in common — *garlic*. I planted it in Washington, harvested it and dried it in Oregon, braided it in northern California and ate it everywhere! To honour the memory of my American hippie hosts, I decided to go monocultural just this once. I would convert the lawn to garlic, and demonstrate to my neighbours that I'd rather grow than mow, and maybe make some extra income from the harvest.

You can convert your lawn using the no-dig method, but I don't like importing soil from somewhere else. In our garden, there is no 'somewhere else', and I had a very limited budget. So the things you need to convert your lawn cheaply and effectively are:

- a big vegetarian lasagne (made using bottled tomatoes and homegrown vegies);

- an Ernie;
- a couple of days; and
- digging implements.

An Ernie is an urban wwoofers, or wwoohger (Will-ing Worker On Organic Household Gardens) and a good friend. In exchange for food and cups of tea, Ernie helped me dig up the lawn. It's a great way to get to know the locals too.

A lot of passers-by stopped to ask if the plumbing had broken, if there was buried treasure there, or to let them know if we struck oil so they could try it at their place — and did we know that Air China flies there twice a week so we didn't have to dig if we didn't want to, ha ha ha.

I shaped the soil into curved beds, made some paths using old bricks and nabbed any stubborn bits of grass that reappeared. Now, at this stage you should apply heaps of compost to build up nutrients because garlic likes rich soil.

But I have to admit, even though I knew the correct way to do it, right action does not always follow right thought. It was heading towards winter, I didn't have much free time, and I was impatient to get things growing. So I apologised profusely to the soil, promised it a good feed in December, and went ahead with the planting. The crop grew really well, but I don't think you should follow my example.

I asked around at a few organic retailers and was lucky enough to get heaps of unsellable but perfectly plantable (and edible) organic garlic. I planted individual cloves about an inch under

the soil with the pointy end up and a big handsapart apart. Choose large cloves if you'd prefer those in the end.

I planted in circles and spirals because even though it was monocultural, I didn't want to look out onto straight lines for months! I planted one half in May and the other half in late June and early July and mulched all over. All I had to do between then and harvest time was keep the weeds down and keep the soil moist. This was not hard in Melbourne; I



think I only watered them once or twice.

## A few meals

People have told me that you shouldn't feed garlic while it's growing because it produces deformed bulbs. But the thought of deformed bulbs didn't worry me. I'll choose diversity over perfection any day. Besides, by September I was feeling guilty about not feeding the soil before I planted, so I gave the garlic a few meals of weed soup and poo stew. It didn't seem to affect the shape of the bulbs this time. In the meantime, I grew a bed of cornflowers out the back and dried them on strings inside the house. They were so prolific I was blasé about them after a few months, and I just left them blooming happily in the yard.

Around mid to late November the garlic stalks had started to go yellow and droopy, so they were nearly ready for harvesting. I knocked the stalks over and left them for a few days before lifting them up with a hand fork to harvest them. Then I spread them out on rejected pallets from the pallet recycling factory around the corner (there are some advantages to city-living) to dry in the sun for a few weeks.

Then it was time to use the skills I had learnt on the commune and start braiding. I experimented with long, short, flat and curved lengths, some with cornflowers woven in, some without. A couple of friendly organic retailers offered to buy them for their shops (cottage industrialists

**"To honour the memory of my  
American hippie hosts, I decided  
to go monocultural  
just this once."**

take note!) but it was more fun giving them away to friends and family and having them hanging around the house. There was so much I didn't braid it all; I kept some of the smaller cloves for making garlic sprays, and larger ones for replanting.

Neighbours and passers-by took great interest in the garlic lawn. I chuckled when I heard the little boy next door exclaim "Dad! Why has she done *that* to her grass?" ("I don't know — suppose she likes garlic, son"). I appreciated the approval of Mediterranean folk who marvelled that an 'Australian' could like garlic that much!

Of course monoculture is a Bad Thing, but sometimes it's good to break up the blandness of the suburban streetscape by doing something dramatic. The summer project — giant Russian sunflowers!



**"What on earth has she done?" Maddy Atkinson with her flourishing crop of garlic.**



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# The Mother of Invention

## Making the most from very little

In *Earth Garden* 92 Carol MacDonald described how she and her partner, Mark, built their house in Tasmania for less than \$1,000. June Birkett draws on the experience of earlier generations to show how you can furnish your house for next to nothing.

By June Birkett

*Cooperook, New South Wales.*

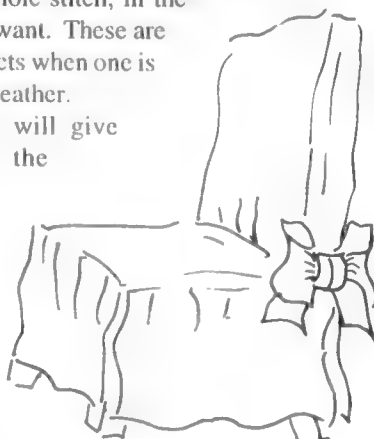
**T**HE GENERATION born from the 1930s to the 1950s remember very well how they started married life. They made a home from nothing, as most couples had nothing but a glory box with some linen. I will share some of their ideas for furnishing a home, and follow it up with some patterns.

Make cushions from old woollen or linen skirts. They can be patchworked or plain with frilled edges, or worked by appliqué. The cushion fill can come from foam or rubber, from old wool from jumpers, or from wool fleece if you are lucky enough to have a sheep.

To make **curtains** or **drapes**, take old sheets, cut to size and stitch with a hem top and bottom. Then with a bright, coloured piece of material cut and stitch-down edges, lengths and across the bottom of sheet. Tie back at sides with a tie-piece the same colour, and presto, you have curtains! To obtain material ask family, friends or op shops.

For **tablecloths**, again find white or plain sheets cut straight or to an oval shape. Trim edges with colourful material, then appliqué — this is the easiest method. Collect a large star-shaped leaf, or shapes you like. Cut the shape on newspaper, colour the pieces, then hand-stitch leaf-pattern pieces onto the tablecloth by buttonhole stitch, in the shape of the pattern you want. These are all excellent winter projects when one is indoors because of the weather.

Maybe someone will give you old chairs where the chair is sound but the vinyl is gone. To make the chair presentable, find a plain or floral piece of material one-and-a-half times the width, and dou-



ble (front and back) the length of the chair. Stitch down the sides leaving an opening at both sides at seat level. Sew two tie-lengths, then slip through the sides and tie into a bow. This is pretty and useful. When it needs to be washed, untie the bow and slip it from the chair.

Use patchwork pieces to make quilts from old warm clothing from op shops, or again, make pillows using old sheets as pillow slips. Scatter patchwork cushions around the bedroom for a pleasing effect.

Buy a cheap camphor chest and a mirror from op shops.

Put the mirror on the chest and you have a dressing table. Another method is to use old kitchen drawers cut from the setting, paint in soft colours, place folds of soft material draped down both sides, pin with drawing pins, and place a mirror on top.

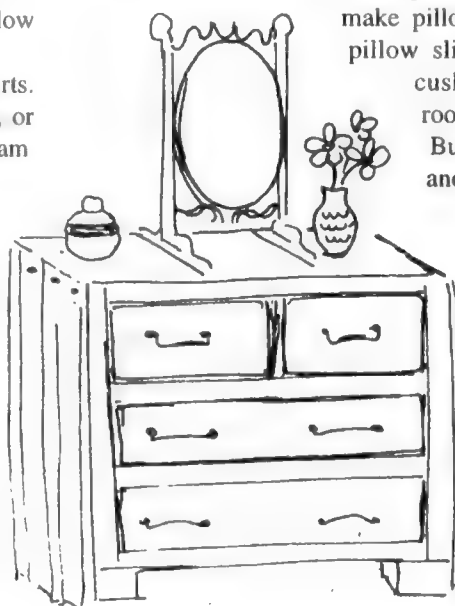
It's easy to make a **bathroom**

**utility cupboard.** Take a kitchen setting, cut out one cupboard, and do it up the same as the bedroom cupboard. Utility items such as sinks, toilets and baths often come up at garage sales, as do curtains. Curtains are a good buy. They have a hundred uses if they are cotton or linen, for just one example, as sheets.

### A free lounge

Large electrical stores throw away styrofoam chips that come in the boxes of electrical goods. Use these to make an excellent bean bag of any size. Curtain material or sheeting can cover them.

Paint pot plants or tie large bows to make house



decorations. Pick flowers or grasses, hang them upside down from the ceiling or shed, and when they're dry, form them into attractive dried-flower art.

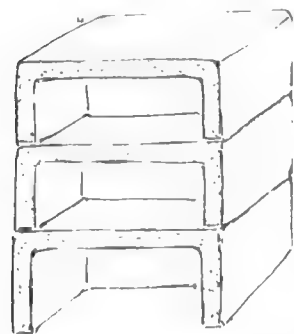
If we start with nothing, then we must invent something to take its place. The pioneer men and women made do with what was around them. A stout, forked tall branch became a hat or umbrella holder. Pottery bowls and cups were the forerunner of china. We are capable of being self-sufficient if we need to be.

Can't afford cupboards? Get picture or hanging hooks and secure them well. Place a dowelling rod in the picture hooks, and your clothes are ready to hang.

Put together an excellent bed by buying two mattresses from an op shop. Place one on top of the other. If the bed needs more support, place a board between the two mattresses. When the mattresses are made up with pretty patchworked quilts and scatter cushions, no one

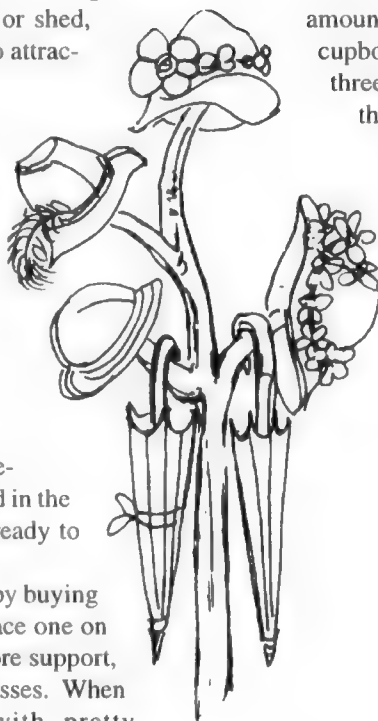
will know the difference. If you need a cot, turn an old table upside down and insert some foam as a mattress. It will be very safe as baby can never fall out.

Foam fruit boxes make good **clothes storage units**. Put one on top of another and cut out the fronts of the boxes. If you would like to make them more attractive,



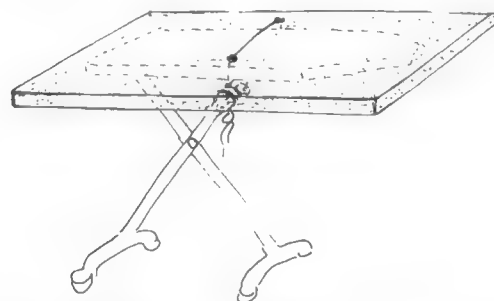
cut fabric and glue to the foam.

To make a **pioneer bookcase**, get nine foam fruit



boxes. Cut the fronts out of all of them, leaving a small amount at the side. Place the first three on top of old cupboards, upside down, then next three on the first three, then top with last three. Glue the foam boxes at the sides to be solid. This can be painted and turned into folk art. It will certainly be a good bookcase.

Desperate for a table? No cash? Obtain an old ironing board, and a piece of chipboard slightly longer than the ironing board and twice the width. Drill holes through chipboard, tie strong twine to the ironing board leg up through one hole in chipboard, across through to the other hole, back down to other leg of ironing board and tie.



Everything can be made from something with a few pieces and some imagination.

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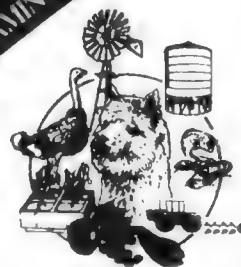
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# Why keep animals?

**Oh, for all sorts of reasons? Make sure they are good ones!**  
**Ann Cliff describes two case studies, and suggests questions to ask before you acquire livestock.**

**by Ann Cliff**  
*Hill End, Victoria.*

**F**OR MANY people it's a big step to decide to keep animals. Acquiring a block of land and planting vegies is one thing, but stocking it with suitable animals is quite another. Underfed carrots will not bellow under your window in the middle of the night. Four-footed friends will — and they should!

Why keep animals at all? Some people argue that the best use of land is to grow food directly for people. They will tell you that animals cause erosion and pollution, and can be a health risk. There is also the moral philosophical view of the creatures that share our world. Attitudes vary from believing that we have absolute dominion over the 'lower creatures' to the idea of total rights for animals, including the right not to be kept for human use.

Most people who deal with animals hold the middle ground, that we have a duty to treat animals well. I happen to think that life is richer with a few animals around, not to mention the soil, enriched with their manure. I believe that in the best, sustainable systems, we can integrate a few fauna along with the flora. If we want to imitate Nature, we will probably encourage wildlife too.

Many of us have a natural affinity with animals that comes from deep in the subconscious as a product of our evolution either as farmers, as hunters, or as both. True farmers respect their animals, are deeply interested in their welfare, and give them as good a life as possible. A hunter said to me recently, "Animals are our spirit brothers". Ethical hunters see themselves as part of the natural environment. They respect the animals they hunt, dispatch them humanely and use the meat and skins so that nothing is wasted.

In the best land-use systems, animals are consid-

ered, and forward planning ensures they enhance the environment. But if you leave out the planning and come home with a bunch of cattle and 30 ducks because you liked their faces at the farm sale, you're heading for trouble. And the people with the trouble are the ones that give our domestic livestock a bad name.

## Case study: the Greens

Let's look at two different families to appreciate the sort of choices we have and the responsibilities that go with

choice. One block of ten acres of undulating grass country was split into two and sold to people who wanted to get out of town and try country life. The Greens had not lived in the country before. Prudence Green and her two children went about the change quite slowly. They built a house first and planted trees and shrubs for shelter the year before they moved in. Prudence made a map of the property, and the first thing she did was erect double fencing along the contours. Within this fence she planted trees and shrubs native to the area. Then she fenced a vegie garden.

Joy and Felicity, the daughters, wanted a project of their

own, so they built a chookhouse during woodwork lessons and bought ten young hens at point-of-lay. They had previously talked to neighbours about what hens like to eat, and how they can be kept comfortable, and they were delighted when the eggs started to arrive. A system of several grass runs, used in rotation, ensured that the hens could always have green food.

Then came five sheep, because Prudence wanted to learn to spin. More fencing gave the sheep a change of paddock and the Greens a chance to make hay from surplus grass. By the time the sheep arrived, the shelter trees were growing well, and it was pleasant to see the sheep sitting in the shade on a hot day. With a bucket of grain feed, Prudence and her daughters soon had the sheep so tame



**Most animals can be tamed by feeding  
— even this shy, fallow deer.**

they would run towards them in the paddock and so it was easy to move them from one place to another. They would always follow the bucket.

Sheep and poultry manure were mixed with the compost to grow the biggest vegetables in the district! They decided there was enough surplus to feed a goat. Under the rotational system of grazing, the grassland improved, and the birds and the possums came to live in the shelter belts. Bird ate the grassland pests, and there was always a good cover of grass on the paddocks, even in a drought. A few years down the track, the neighbours were envious. "Some people are born lucky," they said. "What's it like to live in paradise?"



Who wouldn't love a friendly alpaca?

he tried to move them to another paddock. But the sheep had been chased by an angry solicitor and roughly handled by Hector. They were not too sociable. They would only sulk in the corner, and then make a dash for the other side of the paddock. In the end, only Dilly could do anything with them.

Simon Brown was looking for some cash to improve the fencing, but when his sheep lambed, several died in the cold and wet winds which swept across the unsheltered block. The lambs were small because of lack of nutrition. So he sold the sheep and agreed to 'agist' some dry (non-milking) cows for a neighbour, that is, to take them in and feed them for a while in exchange for cash. The cows were hungry.

### Case study: the Browns

Meanwhile, Simon and Dilly Brown bought the adjoining five acres and moved in immediately with the 30 sheep they bought at a sale. They had to, because there was no room for the sheep in their townhouse. The original fencing was for cattle, and soon the sheep were through the fences. With their natural spirit for adventure, they got into some rather expensive walnut trees belonging to a solicitor with a weekend house down the road.

The Browns had a son, Hector, a strong-willed lad who managed to get the sheep in again, but not before he had offered the irate walnut tree owners some disrespectful remarks. "Get real, man! Get a life," he shouted. Hector was later proven unwise as well as inaccurate.

Even the Browns' own vegetables were eaten by the sheep, but when their small paddock became bare and dusty, Simon decided the sheep must need more grass. So

One cow needs about 20 kg dry matter a day, which means a lot of grass. They ate everything down to the roots and then started to bellow and kick up dust. One of them was cut on an old car Simon had left in the paddock. When the farmer came to collect them, he paid only half the agreed price because the cows were thin and the vet's bill for the injured animal was still unpaid. The cash Simon and Dilly got was not enough to appease the angry solicitor, because advanced walnut trees are expensive.

When the lambs died, Dilly wept. They were so small and defenceless, but she had been told you must accept loss in farming. Then one day she noticed a scar of bare earth in a gully, and realised that erosion was starting. Water from the last rain had rushed down to the creek, taking a load of their best soil with it. And winter, with more rain, was on the way. Dilly looked over the fence to where Prudence Green and a group of friends were picking

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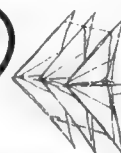


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**Calves like the company of other calves.  
They play together.**

apples. Perhaps the Browns had bought the wrong block; the Greens seemed to enjoy their acres, whereas the Browns were not enjoying life very much at all. Thank goodness they still lived in the townhouse, where they could escape from the worries of the block.

What do you think? True, there are losses and tragedies with animals. I have shed tears at times, and so have most people. But some of the Browns' problems could have been minimised by thinking ahead and imagining what would happen. There are several questions to ask before you buy livestock. Here are some of them.

### What sort of animals are kept in the area?

For example, some high-rainfall areas are not very suitable for sheep, or your fencing may be the wrong type. If you keep the same species as your neighbours, at least it will be easy to seek advice when you need it.

### How much time and attention will they need?

Milking a goat twice a day is not a problem if you have a large family who will share the chores, but it's trying for one person. And from the point of view of duty, you should be able to look over the animals at least once a

day to check that they are not in trouble. Growing (store) cattle or dry sheep takes the least amount of looking after, but even they can have problems at times.

### How much does it cost to get involved?

I suppose many of us would love a couple of alpacas, but can't afford them. Check current prices for animals in the *Weekly Times* in Victoria, and in rural newspapers such as *The Land*, the *Stock Journal* and so on. You will also need to do a budget, work out the cost of keeping them, and the possible returns. Margins are generally not high in livestock farming, but you can aim for the project to be cost-neutral. And you can usually produce your own fresh, healthy food for less than you would pay for it in a shop.

### How many should we keep?

You will need to keep at least two of the same species for company, maybe more if they are herd animals. Sheep, according to research, only feel really happy if there are at least five of them! I would buy at least five or six hens. You don't really need a rooster for egg production, unless you want fertile eggs in order to increase the flock. Sometimes you can put different species together for company, for example a goat would live with sheep during the day, but it might like a shelter at night, which the sheep would not need.

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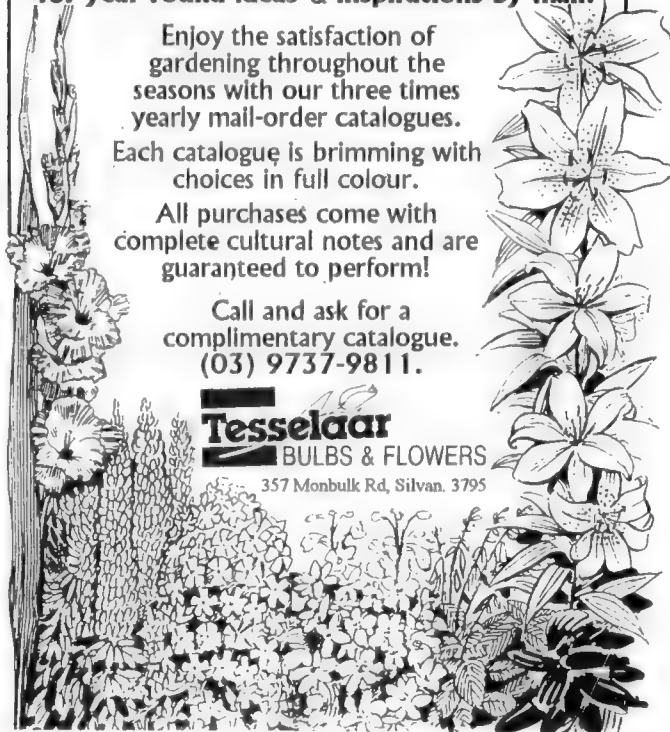
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# Flowering bulbs that brighten summer days

In the second part of his series on bulbs, Col Drewitt describes summer-flowering bulbs.

by Col Drewitt

Woori Yallock, Victoria.

**T**HERE is much written about the spring-flowering bulbs, but there are many bulbs that flower mainly through the Summer. These include *Lilium*, *Gloriosa*, *Sprekelia*, *Ifafa*, *Vallota*, *Knifofia*, Chinese ground orchids, agapanthus and pleione orchids to name but a few. The bulbs and roots of these plants are available now for immediate planting from the nurseries listed at the bottom of this article.

Lilies like a well-drained semi-shaded position with an acidic pH. They do very well grown near azaleas, rhododendrons and camellias. The soil medium should be friable and well-composted with the addition of well-rotted leaf mould. Avoid animal manure and raw compost because this can introduce rot to the bulbs. Dwarf marigolds grown nearby can be effective in combating most pests, including nematodes and thrips which can pass on viruses to the plant. To give your bulbs an advantage, apply a top-dressing of complete fertiliser high in potash in October. Take care not to put it on the foliage. When planting, place the bulbs on their sides to prevent water being caught in the scales and rotting the base of the bulbs. If you plant them this way you must allow for the stem to emerge which would be about 20 cm from what is normally the top of the bulb. The bulb should be covered by about 10 cm of soil.

## Lilies

There are two main types of lilies that are readily available. These are the Asiatic and Oriental lilies. Asiatic lilies are an average 100 cm in height, with flowers in colours from pure white, yellow, orange, red, salmon and pink. The flowers generally face up, and are often spotted

and fragrant. They flower in early Summer from November to December and in an ideal situation can be left down for several years. If the bulbs are sound and disease free, I consider them to be very hardy and most rewarding.

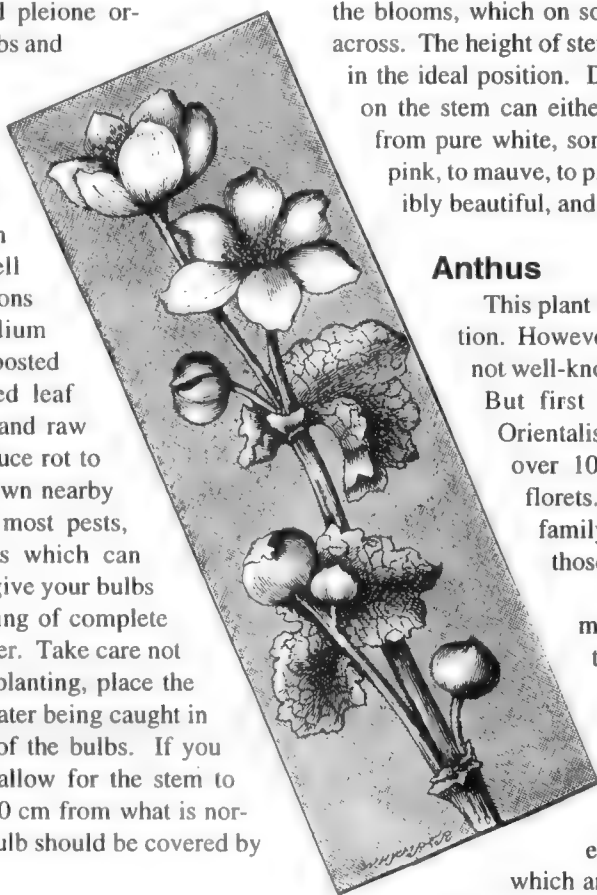
The Oriental lilies are the prince of lilies. Although they are a little more difficult to grow than the Asiatics there is little to compare with the fragrance and the size of the blooms, which on some varieties can measure 21 cm across. The height of stems ranges from 100 cm to 190 cm in the ideal position. Depending on the variety, flowers on the stem can either face up or out. Colours range from pure white, some with yellow or pink bands, to pink, to mauve, to pinkish red. These lilies are incredibly beautiful, and seeing is believing.

## Anthus

This plant almost does not need an introduction. However there are a few varieties that are not well-known; we will have a look at these. But first we will mention the common *Orientalis*; its large round heads contain over 100 outward-facing blue or white florets. It is the most common of the family, yet is excellent for covering those hard dry spots in the garden.

Agapanthus is perhaps the most reliable bulb grown in Australia. It does well in almost any climate, in any soil, in any condition except permanent waterlogging. Although it is a true bulb, it does not ever completely lose its foliage except for the Headbourne hybrids which are deciduous and die down in the Winter. These hybrids grow to about 50 cm, and have blue to deep gentian-blue flowers. They flower a lot later than the *Orientalis*.

Inapertus is sometimes confused with the *Orientalis*. This species has dark violet-blue flowers, but unlike the *Orientalis*, the florets are pendulous, hang like bells, and there are not as many of them in the head. This



species is perhaps the tallest of the agapanthus. Another species which is very difficult to obtain is the variegated *Africanus*. This has deep blue florets in a ball shape on a 40 cm stem. This species is a little shy to flower, but makes up for it with its highly striped foliage. It is not as hardy as the rest of the family.

As well as the species mentioned, there are several hybrids that are worthy of a place in any garden, particularly the miniature varieties. These include Baby Blue, a long-time favourite with 45 cm stems of powder-blue semi-pendulous florets carried on the plants with fairly fine foliage. Then there is the dwarf white with slightly shorter flower stems, which is simply sold as a dwarf white agapanthus but has also been sold under the name of 'Snoopy'. There is also another semi-dwarf which has a flower stem of about 55 cm in height, and is sometimes sold as 'Snow White'. All these varieties look well in a small garden because they don't take up the same room as their larger relatives. They are ideal as border plants or as clumps, and are as tough as their bigger brothers.

Warning: never buy specialty agapanthus from unreliable sources. Unfortunately I know many home gardeners who were conned into buying a miniature white agapanthus, and found it grew into the common white species. The only thing miniature about it was the fact that it was a tiny plant when first bought.

## Other lilies

There are several plants that are often referred to as lilies, however they are not true lilies at all. They are given the name because of the appearance of the flowers.

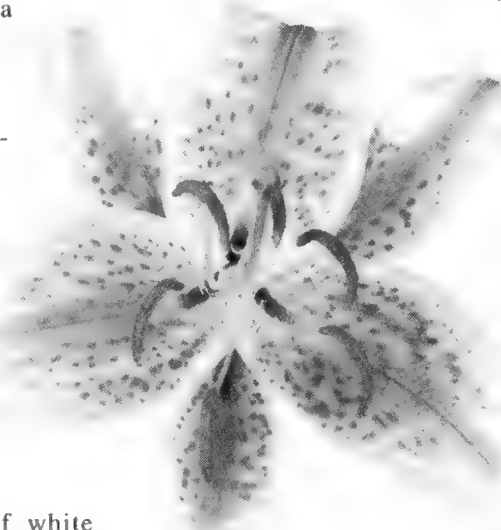
Gloriosa, or the climbing lily, is a semi-tropical plant that can be grown in cool districts by lifting the tubers each Autumn and storing them in a warm room.

They should be planted in September in a well-drained semi-shaded position free from late frosts. They need a small trellis on which to climb. The tubers should be planted about 12 cm deep. There are several varieties, the best is the Rothschildianna, which has large crimson-red flowers with primrose bases that are carried on vines that may grow to 240 cm. The other variety worthy of a mention is the giant form of Superba, which has orange-red flowers on a vine that can grow up to 120 cm.

Ifafa lily is a delightful little bulb which has between four and six heath-like orange flowers on a 30 cm stem which hangs from the top of the scape. They like an open sunny position in a well-drained friable loam. They can also be grown quite successfully in a pot. Plant the bulbs with the top of the bulb just below the surface of the soil.

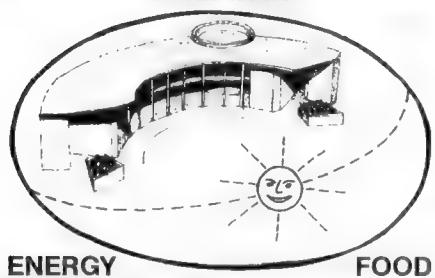
Sprekelia (or Jacobean or Formosian lily as they can be known) lilies have a spectacular dark velvet-red orchid-like flower among the dark green strap-like foliage. They are very hardy, growing in a well-drained open sunny position. Vallota are also known as the Scarborough lily. They bear four to five brilliant flame scarlet-coloured flowers on 35 cm stems, and will grow in a semi-shaded dry, rather than wet, position. They also make a handsome pot specimen. All of these bulbs that resemble lilies will benefit from a top dressing of high potash complete fertiliser immediately after flowering.

Pokers, or Knifofia, almost rival agapanthus for hardiness. They will grow in almost any climatic region in



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Australia. A careful selection of varieties will have them flowering in the garden almost all the year round. They are not a bulb but a perennial root which grows into a tidy clump the size of which is determined by the variety. They need a little bit of tidying up in the Winter by cutting back the old foliage to ensure a neat appearance during the growing period.

## Fertiliser

A dressing of fertiliser in the Spring will benefit the plant and encourage flowers. The flowers are carried at the top of the tall strong stem and consist of some 100 to 200 pendulous florets. Although this genus is a native of Southern Africa, it is very popular with our native honeyeaters.

Varieties worth having are Encifolia, an extremely tall variety with yellow flowers on 150 cm stems in May. Winter Cheer is another very tall variety, with brilliant orange-red flowers on 120 cm stems in mid-Winter when nothing else seems to be flowering. Caulescens has striking grey-green foliage and light salmon-red flowers on 90 cm stems which go cream with age. Gold Else is a semi-dwarf which makes neat fine foliage and has yellow flowers on 75 cm stems in early Summer. Galpini is semi-rare and has been completely destroyed in its own native environment perhaps because it is the least hardy of the family. It is a true dwarf with yellow flowers flushed with a tinge of orange, flowering in late Spring. Last is the common poker which I call Summer Cheer. This has orange flowers ageing to yellow on 130 cm stems in mid-Summer.

Pleiones are one of the least-known of the orchids. These semi-rare bulbs were originally native to the hills of the Himalayas, the mountains of Taiwan, and Burma. They are often referred to as the Himalayan orchid, and are cold-

climate plants that do not require any heat. They in fact do better in a cold Winter rather than indoors. I have grown the bulbs in a shadehouse with a 70 per cent shade, and kept cool in Summer by a watering system. A fernery is an ideal place to grow pleiones; they are easily naturalised and may be grown in a container.

The dainty flower is not unlike a cattleya orchid. The colours vary from bright yellow to dark purple with red-orange and khaki markings in their throats. The bulb has an eye at the base from which the flower emerges mid to late Spring. The flower is carried on a stem about

15 cm high. The time of flowering is determined by the amount of daylight

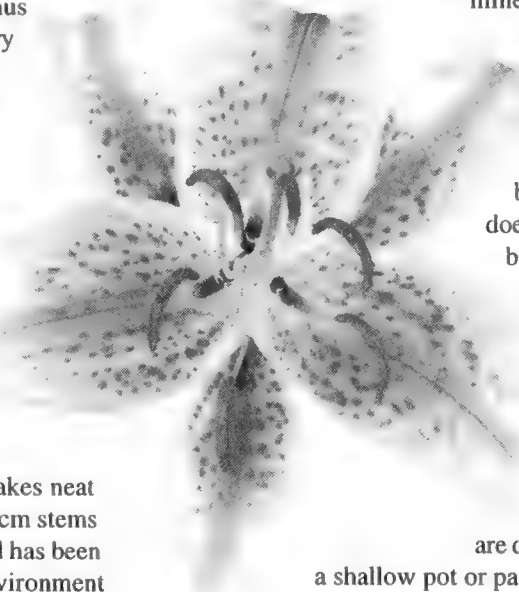
hours and not so much by temperature. As the flower dies, the foliage emerges and is not unlike an aspidistra leaf.

Bulb increase is usually doubled each year. However this does depend on the size of the initial bulb. The bulb size is between three-quarters and one-and-a-half inches (19 to 38 mm) across. The size of the bulb varies depending upon the variety, as does the colour of the bulb itself. The bulbs are available in Winter while they are dormant. They may be planted in

a shallow pot or pan which is well-drained. A very fine bark mix, which has been used for raising seed, is ideal. The bulbs are planted on the surface to about half their depth, and in warmer climates they should just be covered. Unfortunately they will not grow in a tropical climate.

## Gross feeders

The bulbs of this species are gross feeders and should be fed regularly on a weak application of liquid



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animal manure. I have spoken to travellers who have visited the lowlands of the Himalayas and have actually seen the bulbs growing like weeds in a combination of old straw and decomposed sheep manure.

### Good bulb size

In addition to the animal manure, a small amount of complete fertiliser can be placed under the bulbs, but not in contact with the bulbs when they are first planted. During February it does not hurt to apply a top dressing of sulphate of potash, taking care not to get it on the foliage or the bulbs. This will ensure good bulb size and a promise of flowers the following season. Watch for pests like snails, slugs, millipedes and rats. These take the bulbs as they begin to break out of dormancy. Use appropriate deterrents.

As the weather cools each April, the foliage begins to look tatty, goes yellow and eventually dies back in May. When this happens, the bulbs may be lifted and divided, discarding the old 'back' bulb. The new bulbs may be replanted to begin the cycle once again.

Chinese ground orchid (*Blettila Striata*) is a hardy bulbous plant that will grow anywhere from a cold to warm

climate. Bulbs are available in the Winter when the plant is dormant. They should be planted in the garden in a bed with good sharp drainage and a sunny position. The flattish bulb should be planted about 7 cm deep. The flowers are carried on a wiry stem about 45 cm high. They bear up to six or eight mauve-purple flowers with mottled throats with darker red markings. The foliage is quite attractive, forming a reasonable sized clump which may be dug and divided in Winter if it gets too big.

There is also a rare form called *Blettila Striata Alba*. The white flower has a tinge of pink throughout. This form is somewhat tender and it is preferable to grow it in a well-drained pot in a shaded position.

You can buy bulbs of the pleione and the *Blettila* orchid from Drewitt and Sons Bulb Nurseries, phone/fax (059) 674 307. Obtain bulbs of the other species from several specialist bulb nurseries including the following:

- Jan Bidwell of Roth-ley Specialist Bulbs, (051) 653 212;
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- All of these nurseries are reliable and sell stock by mail order. Happy gardening.



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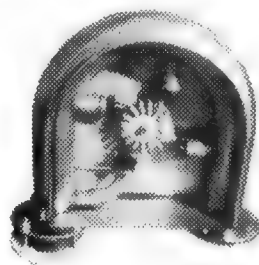
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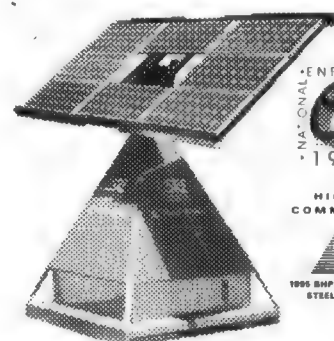
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# The Art of Making a Start

## Part 3 – Get gloriously sublime

To get rich is glorious — *Deng Xiaoping, Chinese patriarch.*

To get compost is sublime — *Michael.*

by Michael Uniacke

*Castlemaine, Victoria.*

**S**HIRL and I stared with fascinated horror at the contents of one of our drums of compost. Jody poked and prodded the mess with a stick, like an artful chef with a big pot of ragout. “You could probably use this,” she said. That was how Vegie Patch Mark II began. ‘Our food scraps and vegetable peelings begat the compost, which begat the soil, which begat the vegie patch, which begat massive pumpkin plants which begat some satisfaction that we are making a start.

Jody is a frequent and welcome visitor to our place, usually with her six-year-old daughter Bonnie. (You’ve met Bonnie — she’s posing with Mattie on the back cover of EG 95.) She and Mattie had disappeared inside to play dress-ups while we studied the revolting compost. It was like a culinary archaeological dig. We were surprised at how many avocados and corn husks we eat. Anyway, Jody thought the compost was nearly ready. We all helped to turn it over with a fork, then we ran a hose up and soaked it good and proper.

Jody has studied permaculture. As we admired the wet mess, I told her about a major problem that Shirl and I had with the compost. Each hoped the other would venture outside with the kitchen compost bucket to empty it into the drum. Consequently the bucket sat in the corner of the kitchen for days. It always was a bit of a hike in the dark, and . . .

“Why don’t you move the drum closer to the house?” Jody asked. I looked at Shirl. She looked at me. Then we both looked at Jody, and we asked her to repeat what she’d said. Why hadn’t we ever thought of that before? I suppose it’s hard to find profound common sense, I thought, as we trudged inside to make a pot of tea. If you tried to summarise permaculture in a few words, maybe that’s what you would say. We scarcely had the kettle on when with a terrific clamour Bonnie and Mattie stomped into the kitchen. They’d organised a demonstration, complete with placards. In unison they chanted, “Chocolate now! Chocolate now!” I sighed. For us, compost. For them, chocolate.

With the compost ready, Jody installed a simple watering system to cover the site we’d selected. She planted some tomatoes and basil, scattered some chook manure, and together we spread the compost over that. Last on was a layer of straw. It was Jody’s Christmas present for us, and it was only the beginning. Pumpkins sprouted and grew. They grew so strongly the whole patch was overwhelmed. Some of the fronds were as big as hubcaps. We never actually planted pumpkin, but it was a favourite vegetable, and of course many husks and seeds found their way into the compost.

I recently went with Jody to have a look at it. A place that before was bare, weedy and a bit decrepit was now rich and green. The tendrils were snaking their way to the house and to the side fence, where they began to climb the wire. Jody thought the fronds would shelter the basil and tomatoes from frosts. Wasn’t that clever.



This richness came from the compost. Thank you compost, for the wealth, and thank you, Jody, for showing us what's possible.

## Thoughts of bytes while gathering bark 1796

We are too busy. Shirl works full time and serves on two committees in Castlemaine. I have four part-time jobs, three of which have me in front of a computer. I'm also writing a book, and that of course is more time in front of a computer. One weekend I'd had enough. I ignored sensible me who said I had to get work done, shoved aside a blizzard of paper, schedules and floppy disks, pulled on old boots and a ratty T-shirt, and burst outside.

For two hours I shovelled and hoed and raked and weeded. I didn't do anything spectacular; I merely tidied and spruced up the back, and made myself feel better about our place. I broke the back of a gathering apathy about being outside. I raked up gum leaves and stored them, I gathered bark

and put it all next to the sticks and twigs I'd picked for firewood. I even sang a silly little ditty:

Earth Gardeners all let us rejoice  
Our weeds are onion-free  
We've clayey soil that's hell to toil  
Our patch is girt by trees.

Jody had pointed out we didn't have to worry too much about onion-grass. Well and good, but in those pleasant two hours my mind was computer-free. In fact my mind soared away with the pleasant physical exertion. It was nice to be not so logical.

It struck me very forcibly the contrast with the kinds of work I'd been doing. Computers have only been around for a couple of decades, but outside, people have been working this simplest kind of labour for thousands of years. As I gathered up the bark, I wondered whether it was my Irish ancestors who called me outside. How would they have coped with computers? Maybe they would have coped fine, but I think they would also talk to me about balance.



1996



## Natural resources

Lately the gum trees have been raining bark. What



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The clayey soil is hell to toil. Mattie lends a hand.

are you supposed to do with it? It's too heavy for mulching. Once I tried to use it for a pathway. I soaked long strips of bark and wove a lattice. It looked quite pleasant until it dried, curled up, caught feet, pulled apart, and for the coup de grace, the oxalis wriggled through and cheerfully gave me the leaf, the horticultural equivalent of the finger. For now, I gather bark and store it for kindling.

Likewise, what does one do with gum leaves? Again, they're no good for mulch, except around some

melaleucas out the front. I collected 20 wheelbarrow-loads and stored them. I have an idea for them that involves paper, scent and campfire camaradie. Will it work? Stay tuned!

What about the branches that fall from the trees? They are easier. Use them for firewood and to line paths. The long branches twist in different ways that almost suggest the direction of the path. That's a nice idea. Shirl and I would gaze over a part of the landscape and wonder how best to form it. The next morning, a newly fallen branch gives an idea. That's the good part about falling branches; they're like a gift from the trees. However you wouldn't think so if one clouted you on the head.

If we're outside, and a strong wind starts, we down tools and go inside. There's a tree out the front that had its divided trunk sheared off during a windstorm. So I now peer upwards a lot.

It isn't only the abundant bark, leaves and branches that we can use. There are piles of rocks, broken bricks, bits of timber, old posts, granite blocks, clay for bricks, and quartz in all kinds of shapes. They are all natural resources, and we can use them if and how we wish.

With those to use for landscaping, and with the compost for the soil, it really does feel like we are making a start.

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# Green methods for women

## — Part 4 —

by Salli Campbell

Delamere, South Australia.

**W**HAT an exciting week I've had. My partner and I visited The Hills LETS Christmas market in South Australia and picked up the first 15 issues of *Earth Garden* for eight LETS units. Later in the same week we achieved our dream and moved to our own space within the bush and to top the week off EG 94 arrived in the post. Our dream became reality because we took a good look at ourselves and the world we live with. It was an easy decision to make and to put into practice if you want to get in touch with reality. This was possible due to the like-minded people *Earth Garden* has put us in touch with, and we would like to thank you all for your help along the way.

At the end of November last year, Triple JJJ had an interview with Alexandra Pope from Moonphase (Refer to Part 2) about how we deal with menstruation as a society. Using talkback radio, listeners got a chance to tell the nation how it affects them. Some of the comments the callers made included feelings about being uncomfortable, tense, depressed, why me, self conscious, can't perform normal everyday functions, drawn within, need time for yourself but can't say "no" to others, instinctual sexuality,

creativity increases, that it is a sense of conscious and unconscious merging together. One guy felt he had felt sympathy pains for the women who worked with him and another described the three days before his friends period as being a time of "richness of emotion".

There were suggestions to help with PMT (Pre-Menstrual Tension). They involved changing your diet by stopping or at least reducing consumption of dairy products, refined sugar, refined flour, alcohol, and not to eat a lot of red meat from the time you ovulate, to be massaged regularly particularly when your period is due, to use aromatherapy and for some women PMT stopped when they had a baby. A comment made about PMT linked women to feeling the world's pain when experiencing PMT. This would link in the underlying philosophy of Taoism and the Deer Exercises, refer to 'Green Methods' — Part 3, EG 94.

My own suggestions are for you to relax, take time out, listen to your body and the messages it is giving you and to create your own space. I realise most of these things go against the 9-5 or any daily routine but I see them as being essential if you want to be able to deal with your bodily functions. Perhaps your routines need to change to reflect some sort of human quality for your life.

Alexandra runs weekend workshops called 'First

### 'Tassie', the green alternative to towels and tampons.

This was the heading of an advertisement sent to me from an EG Reader who cut it from a UK edition of a magazine called *Vegetarian Living*. While our helpful EG reader hasn't tried Tassie yet, she hopes to soon and suggests it looks like a great alternative to the bulky sometimes bothersome pad!

The advert reads,

*"Tassie is an egg-cup sized, flexible, non-allergenic silicone rubber cup which, held securely in place in the vagina through suction, collects menstrual fluid. Empty Tassie every 4-6 hours, rinse/wash with soap and water (or wipe if no basin is handy) then simply replace. Re-usable, Tassie has a five- to ten-year minimum life yet costs £19.50 (including p & p). Tassie is economical, effective, internal sanitary protection which*



*can be carried unobtrusively in your bag, briefcase, holdall or rucksack, providing the security of knowing you can deal quickly with the unexpected. Tassie offers support through all activities, including aerobics and swimming, at college, work, home, gym and abroad. Economically minded and environmentally aware. Get your Tassie from: Aldis Ltd, Seymour House, 285 Banbury Road, Oxford, OX2 7AR."*

I am keen to hear from any EG readers who have tried 'Tassie'. The cost would be higher in Australian dollars due to the exchange rate at the time of purchase. Estimate \$40.00. (It makes you wonder how they came up with a name like 'Tassie' for their product. Maybe a pun on DownUnder has something to do with it?)

Blood' which helps to give you a different perspective about menstruation. For further information about the workshops contact Alexandra Pope, PO Box 1018, Bondi Junction, NSW, 2022. Telephone (02) 310 0591.

### Consider this:

Menstruation is a measurement of time or the measurement of the moon within a period of time.

### Did you know?

"In early American history, women used soft cloth. It was not until 1886 that 'disposable towels' were developed even though they were not marketed because advertising such a product was still considered immoral. Kotex manufactured the first gauze pad in 1921 but did not begin advertising until 1924 in *The Ladies Home Journal*. In 1936 tampons were first put on the market." — Extract from a book called *Sister Moon Lodge - The Power & Mystery of Menstruation* by Kisma K Stepanich, RRP \$29.95.

**Fact:** During the beginning of summer last year. I was

hanging out for a swim at the beach but I had my period and was wearing a Moonflow Pad, bike shorts and t-shirt (something similar to the new kids' costumes). I decided to

go for it and enjoy the refreshing water regardless of having my period. I found that no one noticed or probably even cared. The pad stayed in place as I body surfed for about an hour and I found the pad was virtually clean when I went to change it. So now I look forward to summer even more!

### Homemade pad by Diane Parkview (Part 2 of 'Green Methods for Women'.)

I highlighted a homemade menstrual pad which was sent to me by Diane Parkview of 9 Salmon Close, Busselton, WA. As a result of this article, several readers have been trying to get in contact with her. I have also tried to contact her by telephone,

fax and letter with no success. Hopefully if Diane reads this issue of EG, she will let us know her new contact details.

Thank you for your letters of encouragement and

### Cotton face washers/safety pins/ inventive suggestions!

A suggestion from another helpful EG reader was to use cotton face washers folded to required thickness. Face washers come in a range of colours, thicknesses and prices (from \$1-\$5) and are widely available. This method was used by our helpful EG reader for a couple of years until she recently discovered Rad-Pads (via *Earth Garden*). She says: "Rad-Pads are better for day use due to the press-stud clip, which avoids movement."

Our reader is hesitant about the idea of pinning pads inside underwear unless you are super confident your safety pin is a safe pin. One experience of a woman she knew through dancing has made her a bit dubious. The woman used a safety pin to pin her bodysuit leotard at the crotch to avoid it popping open during her dance exam. Unfortunately, the pin popped open and jabbed her. She had to be assisted from the dance floor because she was in great discomfort. Beware of the safety (?) pin.

An inventive suggestion for women worrying if using these alternative methods will cause soak through to their underwear, is to sew a nylon piece on the underside of the homemade pad (nylon like in spray jackets/sail cloth). This would make the pad slippery in your underwear, so use craft glue or sew some gripping material like corduroy or velcro to the nylon to hold the pad in place.

(For something similar refer to *Moonflow Reusable Pads in 'Green Methods' — Part 3, EG 94.*) If you decide to make and try this method, please let me know of your experience.

Thank you. — Salli

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*I have not tried this product even though I was sent a sample because I still see it as a disposable product. Not only will you need to dispose of the*

*tampon once used but also the cellophane it is wrapped in, (are there any EG readers who may have suggestions about solving this problem? Please write to me C/- PO, Delamere, 5204. I have thought about composting the tampons but do not know anyone who does this. If you do this, please let us know of your results and climate . . . thank you.) It is possible for the box to be composted.*

*Should you decide to use this product, once again it is your choice. The principle behind the product is certainly recognised, however, I have my own personal reservations about blocking up my flow. I prefer to allow it to happen naturally which I find, for me, shortens the duration of my flow.*

*There is another tampon on the market called Cottons, which is Australian made. If there are any EG readers who have information about this product, could you please write to me. Thank you.*

support for this series of articles. Your letters have helped me compile this incredible amount of information and to make it available for future generations. I mentioned an increase in creativity as being one of the feelings experi-

enced by the listeners of Triple JJJ, I can vouch for that. During the numerous times I have sat down to compile this information, by coincidence, I have been menstruating. I am not sure if it is luck or fate, perhaps both!

•FRIDGEMATE•
BACK TO BASICS•



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58 EARTH GARDEN — June/August 96



# Questions & Answers

... with Jackie French



*If you have a question about pests, bugs, bites, gardens, food, trees et al, write to Jackie at PO Box 113, Braidwood, New South Wales, 2622. Enclose a stamped, self-addressed envelope with your letter, and please be patient. Letters are inclined to pile up on the window sill until the Earth Garden deadline starts looming, and the odd letter is chewed by wombats, drowned by late-night Ovaltine or comes to similar disastrous ends. So if you don't get a reply please write again, and if you can wait until the magazine comes out for an answer, Jackie will be grateful. That way she doesn't have to stand over the printer coaxing it to print just one more page before it conks out.*

## Should we feed our native birds and animals?

Dear Jackie,

*Last summer was the second consecutive long dry summer where I live. Long-established bush trees were dying or very stressed. Also there are more people netting their orchards so there were a lot of hungry native birds. They ate half-developed apples — every single one! — off our apple tree. We didn't mind because we know how they are suffering, and the tree is loaded again this year. Do you think it's okay to put food out for native birds and animals, or just provide forage for them in the garden? Do you have any suggestions to incorporate a guinea-pig hutch and worm farm so we can compost the bedding before putting it on the garden? The guineas don't eat their oats in the dry mix and it makes lots of weeds.*

*Love from Michelle, Mt Helena, Western Australia.*

Dear Michelle,

According to studies a couple of years ago at the University of Maryland in the United States (quoted in *New Scientist* but I can't remember the date) it's okay to feed wild birds, at least sporadically. I don't mean the wildly overindulgent handouts you see at bird 'sanctuaries' and holiday islands, but just the odd bit of seeds, bread and so on. The extra feeding doesn't make the birds dependent. They just become fitter and so better able to forage by themselves. A good feed from a bird table however does make them heavier and more vulnerable to cats for a few hours. Make sure you put food in a cat-free spot and provide high perches, trees as well as food and of course water. If you look around a suburb it's amazing how much food you can find for birds — fruit-tree blossom with insects and so on... but unless birds learn to turn on taps or

breaststroke in chlorine-filled pools there's not much water.

I'm not sure what you mean by incorporating the worm farm and guinea-pig hutch. You can give the guinea-pig bedding to your worms, as long as it's not putrid. The commercial worm farm up from us uses large amounts of treated sewage, but the worms may not like the oats either. They seem to be hard and indigestible. Give it to the birds or get some chooks, or even better, change your guinea-pigs' diet.

I don't mind oats as weeds in the garden though. I used stable bedding as mulch and cursed the oats that sprang up everywhere, until I learnt that they made the most excellent mulch when pulled up by their roots. Then I didn't even need to do that as the wombat learnt about oats and trod very delicately through the garden eating just the oats. Wombats probably aren't appropriate in your area though.

You can also try sticking the bedding in an old wheelbarrow, preferably with a few holes in it, watering it, waiting for the oats to sprout, then shrivelling them in the sun. Then use as mulch. Or just compost them.

## Figs, beer and the loo

Dear Jackie,

*In our garden we have an enormous fig tree. Every year it produces huge numbers of figs, but they all drop off before they ripen. We live in south Sydney very close to the sea and suspect it's the location. What can I do with these figs? It seems such a waste. We've also just started brewing our own beer. So far not a great deal has been particularly drinkable. Any suggestions as to what I can do with the excess? And third, we have a rotary-composting toilet that must be ten to 15 years old. The property is*

*rented so replacing it is out of the question. Do you know of anyone in the area who services these devices? It and I seem to be having a running battle at the moment and the loo's winning.*

*Jane, Yowie Bay, New South Wales.*

*Dear Jane,*

As regards your figs, try pulling off two-thirds of them. Hopefully the rest may ripen. You might also try feeding the tree with something rich in potash, phosphorus and nitrogen. A lack of any one of these can make fruit drop off. You may also have fruit flies — look for tiny grubs in the fruit. As for the fallen fruit, if they are big enough to be sweet, try drying them. If not, try pickled figs — they're excellent. Make a sweet pickle with one litre of vinegar (your choice — I'd use red wine or white), one cup of sugar or honey (I use white sugar for the best taste and the resulting pickle keeps better), a few cloves, a bit of cinnamon bark, and a few black peppercorns. Add a chilli or two if you like a touch of fire. Bring the vinegar and everything else to the boil, simmer ten minutes, quarter the figs, throw into the vinegar and take off the heat at once. Bottle hot and seal. It will be good after two weeks and even better after two months.

To dry figs, cut them in quarters and lay them on alfoil in the sun. Take them in when it rains or becomes dewy. Haul them inside as soon as they are pliable, not crunchy. Store in a dry spot. Green figs and apple are also excellent. Add one part apple to one part sliced figs, stew with as much water as necessary till both are soft, and sweeten to taste. It's good to add a few cloves. I use brown sugar here for better flavour. You can also dry small figs by threading them on a string and hanging under the eaves. Birds love them, so beware. On the other hand you may want to leave them for the birds anyway.

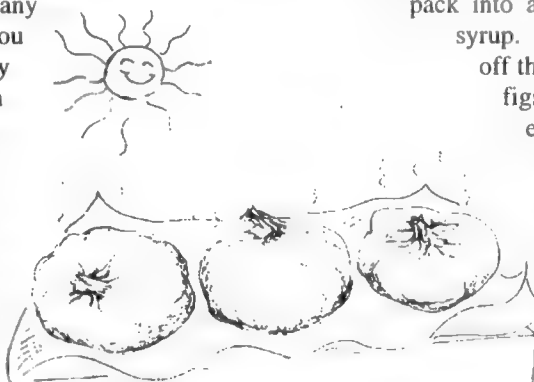
You can make fig jam with green figs. Simmer till

soft, and add one kg of sugar for every kg of uncooked figs, with the juice of two lemons. Just cover with water and simmer till a little jellies in cold water. Bung in some Jamsetta (one packet for two kgs of fruit) if you're unsure.

Green figs in syrup are wonderful. Make a brine with one cup of water and one cup of salt. Prick figs all over with a needle. Leave in brine overnight, weighed down if necessary so they're under the water. Now make a syrup of one cup of sugar to one cup of water. Simmer ten minutes. Drain the figs, wash the salt off, dry, pack into a bowl and pour on the boiling syrup. Leave overnight. Next day pour off the syrup and boil again, pour over figs. Repeat for three days. At the end of the fifth boiling, pack figs and all into a jar or bottle. Leave at least two weeks, if not two months, and eat with relish (as in enjoyment).

About the beer — dunno. You can cook with beer instead of wine, but if it's lousy beer the tucker will be lousy too. Beer makes a reasonable fruit-fly trap.

Fruit flies like stuff that's sweet, wet and yeasty, but maybe you have fruit flies with a palate too. About the loo — look in the phone book — the pink pages or yellow or whatever they're called these days.



## **Mystery at worm farm**

*Dear Jackie,*

*I have a four-tray-style worm farm which I have had for eight months. I began the worm farm with 500 worms and assume I now have more than that. My problem is that the vermicompost never seems to get to the line which indicates it is time to put on the next tray. Some time ago I did put the second tray on but the worms never moved through. I feed them mostly vegetable scraps, tea bags and so on. I have a layer of hessian over the working tray and the other empty trays on top. I do get a lot of liquid from the bottom (along with kamikaze worms who insist on falling through the bottom) which is obviously great for my plants. There always seems to be loads of baby worms and lots of worms about to breed. It is always moist and does not smell. Sometimes the food seems to go mouldy, in which case I pick it out. I do get some slugs in there along with small fruit flies. I pick the slugs out and if the flies are bad I put in a bit of lime. How long should it take for the vermicompost to reach the second tray? Am I doing something wrong?*

*Sheryl, South Caulfield, Victoria.*

*Dear Sheryl,*

Dunno. Looks like you and the worms have reached stalemate. They eat, breed and replace themselves. There's no smell, no dead or funny-coloured worms so you

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must be doing okay — except perhaps you need to eat more? Maybe the food-scrap output of your household is not enough to support any major increase in worm numbers. (Worms need about twice their weight in tucker). Try to recruit some of your neighbours into contributing to your worm farm. If their scraps consist of more than old pizza boxes or Chinese-food containers, you might be able to increase the food supply and thus the fecundity and poo output of the worm farm. Maybe you just don't have faster breeders or shitters — or hungry worms. Maybe another reader can offer suggestions.

## Fire and frangipanis

Dear Jackie,

*I've had a passion for a huge grove of frangipanis — the foreign one with the huge white or pink flowers. Do you think they would be fire retardant? The trunks seem a bit 'succulent' to me and the leaves nice and juicy, so I'm inclined to think they'd be perfect and a grove would double as a great firebreak. However someone suggested to me that they might be oily and very flammable, like eucalypts.*

*Janine, North Rocks, New South Wales.*

Dear Janine,

I'm not sure — we don't have one here so I can't test it. But here is how you can. Firstly, take a bit of frangipani — leaves and stem. Chop well and place in an old fireproof bowl or baking dish. Let it fry for a day in the sun. Now take one of those gizmos that you light the stove with or a cigarette lighter and hold the flame to the leaves and wood. See if it lights. If it does, forget about frangipanis as a fire break. If not, you're still not out of the wood — or the fire zone.

Surround more frangipani wood and leaves with firelighters (those stinky compressed kerosene things). Set them alight and watch the frangipani. If it fizzes and shrivels it's fire-retardant. If it whooshes up it's engaging the blaze. And if it just burns, well, if a fire comes through it'll burn too.

## White-tailed spider blues

Dear Jackie,

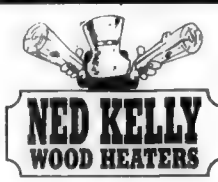
*Do you have any information on these rotten white-tailed spiders? I'm sure our timber house is breeding them. They seem to be everywhere at the moment. Yesterday and this morning I killed two of these spiders that were king-sized. I really am almost at the phobic stage now with them and would rather meet a redback or a snake! Having seen what they do to people's arms and legs, I am horrified. Is it just the big ones that deposit the bacteria (I've heard that's what causes the ulcers and pain)? We have lots of little ones too — too many for my liking. There is no antidote to their bite I believe, so what would one do except scream blue murder?*

*'I've got the stars', Eden Park, Victoria.*

Dear 'I've got the stars',

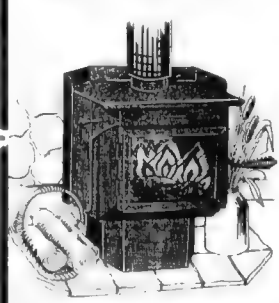
You can relax. According to the CSIRO (I rang to check before writing this in case any other data had come to light), most of the panic about white-tailed spiders is a furphy.

The bacteria that cause the ulcers are very unlikely to be on the spiders, and anyway, they are very common in soil and water. The infections and ulcers are probably from normal infections you can get from any bite, including from a mosquito, especially if you scratch them. I was told very firmly there was no scientific literature to back up the claims in the press.



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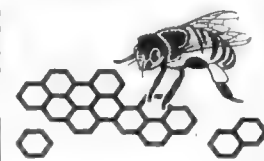
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I was told the best way to get rid of them was to "pick them up and take them outside". That's where they come from. They live under bark on trees and in gardens, and wriggle through very tiny spaces to get inside to the warmth and shelter of your home.

Personally I'd whop them with my shoe, especially as there are so many. We take huntsmen outside, but I'm not sure I could pick up a white-tailed spider. There again, if enough mud is thrown some sticks, and I've been influenced by the anti-white tail hype in the media too.

To reduce the numbers a bit, try vacuuming in all crevices as much as you can — for example under the bed and up on the bed itself as well as on the floor. Putting in fly screens and strips under doors will help somewhat. Many will still get in but you may at least slow down the invasion a bit. Blocking up crevices in the floor, around windows and so on may help too, but these spiders naturally slide into crevices, and are very good at insinuating themselves through tiny spaces.

I'm sorry I can't be of more help in getting rid of them, but at least you don't have to worry about sacrificing a limb every year to them.

## Too many crickets are not sporting

Dear Jackie,

Help! We live in a flat above a community centre in Sandringham, Victoria, directly opposite the beach. We have a wonderful courtyard balcony with potted plants which is enclosed by glass to the west and shade cloth above. Our problem is crickets! For the past nine years from mid-January to mid-April they infest the area. The balcony leads to the main living area and hallway through large glass doors which we like to have open throughout the summer. It would be okay if the crickets stayed outside on the courtyard balcony, but no, they come into the house even when we close the wire screen doors. They hop and fly around the room in the evenings, distressing us.

We have tried many commercial and other ways of getting rid of them, including some pretty toxic stuff that often kills the plants. At the moment we use Pennside Lawn

Grub Killer which we apply every three to four weeks during the cricket season. We combine this with a eucalyptus spray against the doors every evening to discourage the beasties. The eucalyptus idea was suggested by Kevin Heinz, and when sprayed against the wire doors does seem to deter them a little. But still they come!

This has become a real problem for us. Please, how can we get rid of these crickets before they hatch (if that is what happens) without poisoning the environment and ourselves? We love our plants and our roof garden and live outside in this area for four to five months of the year.

Rosemary, Sandringham, Victoria.

Dear Rosemary,

Try replacing the lawn grub killer with the commercial eucalyptus spray. Use it against the doors with your own mix of melted candle with eucalyptus oil. Paint that on doors, hanging baskets and so on. The scent will last longer than the spray, so the repellent effect lasts longer too. If possible use a red light globe, not a fluorescent one that will attract the crickets. And if all else fails, stick on Beethoven's Pastorale and pretend the noise is part of the music.

Provide food for large birds like magpies and currawongs, which are avid lawn larvae eaters. (Your beasties will be breeding in grass nearby.) The birds may be killed by any deadly spray, but once you have the birds the pests are kept down to reasonable levels. Inject the tunnels of larvae with a mixture of soap softened in water and eucalyptus oil. The solutions above should have at least a gradual effect on the population. You may need to wait a couple of years for the present population to reduce.

## A menu for snails

Dear Jackie,

I was very interested in your article, 'Tired of pests? Eat them!' I have been wanting to collect my snails for ages to eat but didn't know how to starve or feed them. I have heard there is a woman in Victoria doing this commercially. She feeds them something like chicken pellets to fatten them up. Do you know what it would be? It

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would be? It is just that I think the dietary value of the snails would be overtaken by the economic cost of feeding them lettuce or vine leaves for one month! Do you have a suggestion for something cheap I could buy from the local produce shop?

Karen.

Dear Karen,

I've never actually considered tempting snails before. I usually repel them! But any garden refuse, the unpoisonous sort you would eat, would be fine. Add some bran perhaps, or day-old bread. Snails will eat chicken pellets and dog food too, but I would be uncertain of the effect of additives on human health. These would not be too disastrous in the case of chicken pellets, as after all they are intended for laying chooks, but I prefer my snails au naturel. (Ours seem fat enough already.) The idea of feeding them vine leaves or lettuce isn't to fatten them. It's to purge them of any toxins.

PS: Your letter said you'd enclosed a stamped addressed envelope, but there wasn't one! There was also no address on top of the letter, which means I'm afraid the snail season will have passed before you read this. But if there's one thing that's sure in life — snails always return!

## An anti-pimple preparation

Dear Jackie,

Could you please send me a copy of the recipe containing garlic, vinegar and lavender flowers which can be used for teenage spots and blotches? Instead of lavender flowers would it be possible to use lavender oil? Lavender flowers are rather scarce in Weipa. Thank you,

Christina, Weipa, Queensland.

Dear Christina,

Fill a jar with chopped lavender flowers and chopped garlic. Pour on white wine or cider vinegar. Leave for a week and use. Lavender oil is even more effective than the flowers. It's just more expensive if you've got your own bush. Add say one teaspoon per cup of vinegar. If you can't get hold of lavender oil, or the teenager doesn't want to smell floral, use tea-tree oil in-

stead, or better still, lemon-scented tea-tree, or grey myrtle oil. Dab on several times a day. The smell soon evaporates and it's the most effective anti-pimple lotion I know.

## Romantic candles that repel mosquitoes

Dear Ms French,

I am very keen to get the recipe for citronella candles. We are plagued by mosquitoes here and would like something different to the ordinary commercially made buckets of citronella wax.

Margot, Murrumba Downs, Queensland.

Dear Margot,

First find your candle moulds. Empty egg shells work okay, as you can flatten the bottoms later. You can also try dipping — see below. Melt your ordinary candles, take off the heat, and add a good teaspoon of citronella oil to every three melted candles. Even better, add lavender oil or even lemon tea-tree oil. Citronella oil isn't a terribly effective pest repellent. I find a little derris dust added to the melted oil also helps repel mozzies. You find derris or rotenone in mosquito coils. Very finely chopped, dried wormwood helps too.

Pour into the moulds and poke the wicks down. I tie them to a couple of toothpicks balanced on the top of the mould to keep them straight. Or you can 'dip' them. Dip the wick in the melted wax, pull out, wait a few seconds for it to harden, then dip again and again. Each time the candle gets fatter. Remelt the wax in the pan as necessary, and don't leave the dipped wick in for more than a couple of seconds. This gives long thin candles.

You can also add a bit of crayon to the wax to colour it. If you add a few shavings at the last moment and swirl them round, you'll get patterns. Then go on adding different colours for new patterns. Actually scented candles aren't that effective. The hot air rises and the mozzies bite your ankles. Put them (the candles, not the mozzies!) on the floor for the best result. Even better, smear on repellent as well. But the candles can help a bit and do smell nice, especially if you use lavender oil. A bit of rose or other oil, or even Arpege perfume or other scents, doesn't harm the repellent effect. But they can add to the romance.



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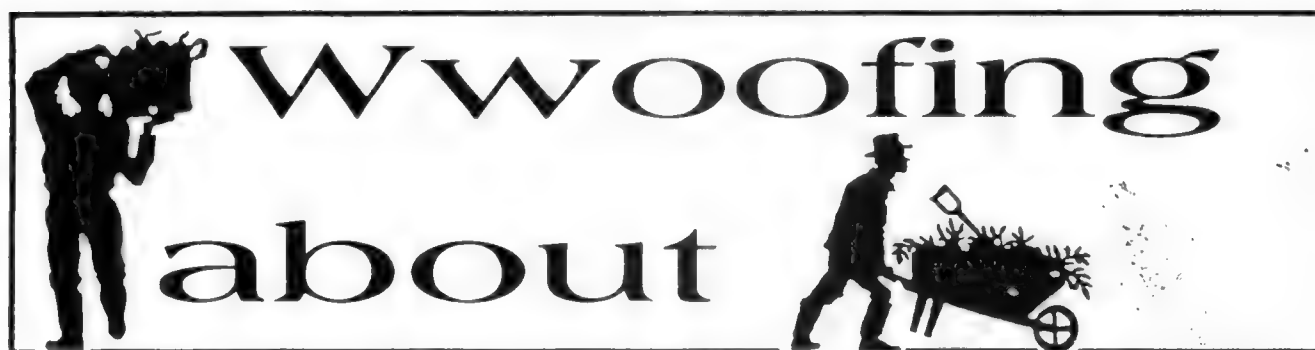
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## The world of WWOOF

**by Lionel Pollard**

*Buchan, Victoria.*

**A**S REGULAR readers will know, wwoofing takes place around the world. There are 13 groups like ours doing things nationally, one in the United States doing long-term training only, and one other like ourselves doing a worldwide listing. We started this at the request of a couple of hosts in Europe and some Aussie wwoofers wanting places to go overseas.

We devised our own protocol. Firstly we promised that we would not 'poach' the hosts of other WWOOF groups. The few we do list are by request of the host — who wants to attract people from overseas — and with permission from the host country. We have three such entries for Britain and one for Canada. People who really want to go wwoofing in those countries would not get far with only our list to guide them.

Another promise we made was that we would supply our listing of hosts in any one country to any organiser in that country who started a new WWOOF group. In the past year we have seen a reawakening of an old, thought-to-be-extinct, WWOOF-style group in Spain, plus new organisers for WWOOF Finland, and for WWOOF Italy. Because of different circumstances we are dealing with each of these in a slightly different manner.

### **A permanent address**

A proviso was that we should feel reasonably happy that the organisers were doing a good job. One of the things we believe is important for a new WWOOF group is a permanent address. It takes a long time for publicity about a WWOOF group to get picked up and used, and we often have enquiries from people who obviously got their information about WWOOF several years ago. Indeed

when we moved to Buchan in Victoria from Melbourne in 1987, we kept open a redirection notice at our old post office for three years, and even then found that mail was trickling through to us four and five years later. Any WWOOF group which does not have a permanent address and/or a permanent mail redirection order in place will lose a lot of enquiries.

In this regard the Italian group raises a query because it is a farm address, and we are not sure if it is permanent or not. The other two are okay; both are part of a larger environmental or organic group. The Finnish group is okay in other regards. The organiser is an ex-wwoofer (having been to Australia in 1994), and is willing to network and gain from the experiences of other WWOOF organisers.

The Spanish group, however, leaves much to be desired. I wrote to them at least once a year to keep in touch, and invited them to do likewise, but their response was poor. When the German WWOOF group found the same problem in the late 80s, they wrote them off. I heard that they took four months to respond to a wwoofer's enquiry about joining, and their list turned out to be the umpteenth photocopy of a photocopy — barely readable. Our worldwide list includes all the places on that list, plus others we have located, and is a very readable two pages in our printed booklet. Until the Spanish WWOOF gets its act together, Spain will continue to be in a 50/50 section of our book. However we still include them in our listing of WWOOF groups worldwide in case things change.

### **Contact**

We do not have the same contact with the overseas hosts that we have with Australian ones because of the high costs of postage. We pick people up from magazines and newsletters, from personal feedback from travellers, and from advertisements they have placed somewhere. We

## Wwoofing around the world

**WWOOF groups are independent with their own fees. Contact them for their lists.**

**WWOOF Australia:** Lionel Pollard, Mt Murrindal Co-op, Buchan, Victoria, 3885. *Worldwide list* — 400 WWOOF groups and in countries with no WWOOF group; \$15, phone or fax (051) 550 218.

**WWOOF Austria:** Hildegard Gottlieb, Kernstockweg 8, Frohnleiten 8130. 150 Schillings.

**WWOOF Canada:** John Vanden Heuvel, RR2 Carlson Rd, Nelson, BC, V1L 5P5. \$C25, phone 604 354 4417.

**VHH (Alternative Travel Club) Denmark:** c/- Inga Neilsen, Asenvej 35, 9881 Bindslev. 80 Danish Kronor.

**WWOOF Germany:** Thalhauser Fussweg 30, 85354 Freising, Germany. 30 DM, or send \$A25.

**WWOOF Finland:** Riita-Lena Makinen, Koikkalanmylly, 51880 Koikkala. (3 x IRCs), phone 55-450-251.

**WWOOF Ghana:** Ebenezer Morley-Mensah, PO Box 154, Trade Fair Centre, Accra. Send \$US25.

**WWOOF Ireland:** Kieran & Rose O'Brien, Harpoonstown, Drinagh, Co Wexford. Send five Irish pounds, \$US10 or \$A15.

**WWOOF Italy:** Elisa Grandis, Casolare Acquachiara, Via Vallicorati 11, Guardistallo (Pisa) 56040. Suggest \$A15.

**WWOOF New Zealand:** Jane and Andrew Strange, PO Box 1172, Nelson, phone (025) 345 711. Send \$NZ25, \$A20, or \$US15.

**WWOOF Switzerland:** Thomas Schwager, Postfach 615, St Gallen 9001. Send 15 Swiss Francs.

**WWOOF Britain:** Don Pynches, 19 Bradford Rd, Lewes, Sussex BN17 1RB. Send £8.00 from within Britain, £10.00 from elsewhere.

**NEWOOF USA:** New England Small Farms Institute, PO Box 937, Belchertown, MA 01007, USA. Send \$US20. For long-term apprenticeships, wwoofers must be American residents, and are paid \$US50 a week.

**TERN USA:** (Travellers Earth Repair Network), Michael Pilarski, PO Box 4469, Bellingham, WA 98227, USA. (60 in USA and 200 worldwide) List costs \$US50, for students \$US35.

simply put them in our list, and rely on wwoofer feedback to update entries. Sometimes a host will contact us to change their entry, and because our worldwide list is getting better known, this is happening more frequently. Sometimes we get a bundle of feedback from one traveller who really has been using the network and who wants to keep us in touch. I am full of admiration for the two women who over the past three years gave us information on about 50 hosts! A bit more frequently we get a quick note about one or two entries, and I thank these people for

their efforts. Little bits add up quickly, and I'd really love to have one short note from *every* overseas wwoofer — then I could feel really good about our list. Even the verbal feedback we get when I meet wwoofers at shows and such is good to get.

So where do wwoofers get to? The box above gives you details of the 13 WWOOF groups around the world. We have more than 400 entries in our worldwide list covering 48 countries. There are 24 in Africa, and WWOOF Ghana has about 30 places of its own. There are 48 each in Asia and in the Americas (North and South), while in Brazil we also list 46 alternative communities which could make interesting stopovers. Europe boasts over 320 entries, of which nearly half are in France. By the time you add the host networks of the WWOOF groups in Europe there must be close to 1000 choices. Of course with Europe's population density and the popularity of organic growing, there could be lots more in Europe.

I would appeal to any wwoofers who have used our worldwide list to tell us about the trip, and especially to let us have some stories for this column. For those still looking forward to a trip overseas, the list is available at \$15 from WWOOF, Mt Murrindal Co-op, Buchan, Victoria, 3885. The Australian Lists, ACE and ORG, are \$25 per single or \$30 per couple, including insurance.

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# Getting down to the metal

## — Part 2 —

Here is part two of an edited extract from a Trendline Publications Instruction Manual\* on how to build your own forge.

### How to make an air blower

An air blower only needs to blow a good solid stream of air out of a 25 mm pipe. You do not require any specific air pressure. A weak air stream will create heat in the forge but it will be a slow heat. Too much air at too high a pressure will blow sparks and ash around. However, if you have a powerful fixed-speed air blower, you can always reduce and regulate the excess pressure with the air-control tap on the ash-collector tube. (Ash will not fall down while the air blast is coming up.)

A vacuum cleaner has an ideal volume and pressure. If you can get one with a reverse cycle, go to a shop and ask for a demonstration. Flatten the palm of your hand against the nozzle, then lift it off about 25 cm or so to get a good idea of air pressure and volume.

The main requirement for your air blower is a shroud, fan, collector scoop and delivery tube (*Figure 1*). Use a 20 to 25-litre drum as the air shroud, and fit a large plastic funnel in the end (see diagram) for the collector scoop. A 25 mm plastic hose slides up the funnel snout, and the other end connects to your forge.

Inside the drum you can sit an electric fan, or your own motor and fan made up from a washing machine motor and an old car fan. *Note:* The fan blades should be just

inside the drum. If necessary trim the blades back so that they spin free and clear of the drum walls.

It is not necessary to use either a washing machine motor or car fan. We suggest these because they are very cheap and there are plenty of them around. You can use an old starter motor off a car if you require a 12-volt air supply for using the forge on a site in a remote location. Old motors and blowers from clothes dryers, car fans and so on are all okay.

### How to make a blacksmith's bellows

The old blacksmiths of the past did not have the luxury of electric air blowers, and had to rely on hand-operated air pumps or bellows. These were made from leather and wood. Today, vinyl and plastic are as durable as leather, and are lighter and more airtight.

You can make your own set of bellows using plywood or chipboard (pine) hinged with two brass hinges (*Figure 2*). Use upholstery vinyl with the fabric backing

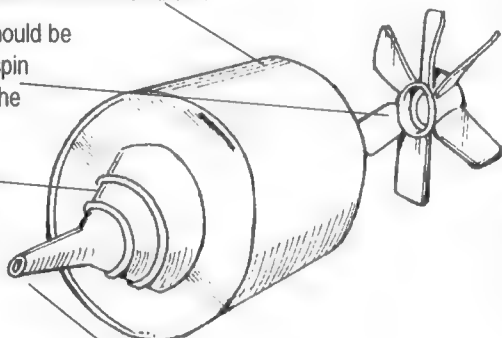
### Figure 1: Air Blower

The air blower needs a 20-litre oil drum.

The fan blades should be trimmed so they spin freely just inside the drum.

A plastic or metal funnel should be wedged in and glued to the bottom of the drum.

The plastic hose is pressed onto the funnel spout for air delivery.

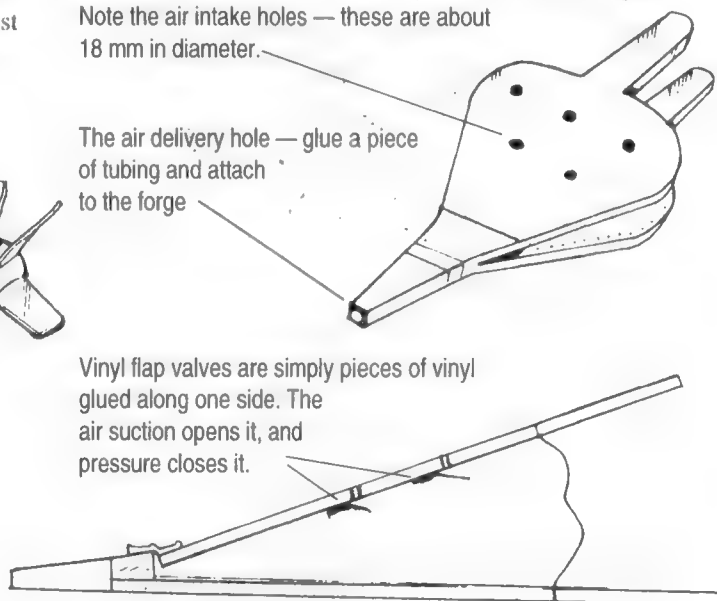


### Figure 2: Air Bellows

Make the air bellows from 20 mm plywood, with brass hinges. Note the air intake holes — these are about 18 mm in diameter.

The air delivery hole — glue a piece of tubing and attach to the forge

Vinyl flap valves are simply pieces of vinyl glued along one side. The air suction opens it, and pressure closes it.



for greater flexibility and a longer life. Attach the vinyl using contact cement and upholstery nails. Make the air-intake valves from a flap of vinyl nailed and glued at one point. The vacuum created by the opening bellows opens the flaps, sucking in air. Air pressure slams them shut as you close the bellows.

## How to harden, temper and anneal steel

High-carbon steel, that is, tool steel, spring steel, and so on, can be softened, toughened, or hardened to the point of being brittle by heating in the forge and quenching in water, brine or oil. (Mild steel, which has no real carbon content, cannot be hardened, tempered or annealed.) What do these words mean?

**Hardening:** Increases steel's resistance to wear, and makes the steel hard enough to cut other metals. **Tempering:** Reduces the brittleness of hardened steel, but increases its toughness. **Annealing:** Softens metals.

Steel has a grain structure that in some respects is similar to wood. Forging and hammering 'tightens' the grain and realigns it to create greater strength. Heat causes certain chemical changes in the molecular structure of steel. This alone can change the grain structure, so the degree of heat reached before cooling is extremely important.

The tempering heat is described as seen in *dim light*. It is only in dim light that the blacksmith can properly see the heat of steel, for example, dull red, dark cherry, red glow, and so on.

A more precise guide to tempering heat (and used with the above) is the 'oxidation colour spectrum'. Carbon steel turns different colours as it is heated. These colours range from light straw to dark blue. To see them, rub the steel with an abrasive stone. You can then see the colours on the shiny section.

Do not under any circumstances overheat the steel. Once it reaches a white heat, it begins to 'burn', and the grain structure is destroyed. If you see a sudden shower of sparks fly up from the forge, the steel has lost its quality, and is useless for hardening and tempering.

## Hardening

The grain structure of steel is at its finest and extremely hard when the metal is quenched at a temperature of about 740° C. Technically speaking this is known as the point of decalescence. The steel is heated to a bright cherry-red — the maximum heat. Any hotter temperature disrupts the crystals and grain of the steel.

The steel is quenched, that is, bobbed up and down in warm water or warm oil (car sump oil is okay). If the steel is held still during quenching a vapour film can surround and insulate it. As a general rule, the more rapid the cooling, the greater the hardness. However warm or tepid

water is better because cold water can cause cracking.

## Tempering

Hardening will harden high-carbon steel to its maximum. However, at this degree of hardness, the steel is far too brittle for most uses, and has to be toughened by 'tempering'. Do this by heating the steel to a lower temperature, measured by the colour of the steel — polish the surface and check the colour when quenching.

Below are common items, their oxidation spectrum colour, and approximate degrees of heat.

Hammers, scrapers, scribers and dividing tools — light straw — 230° C

Taps, dies, drifts and punches — dark straw — 245° C

Drills and lathe centres — red-brown — 260° C

Cold chisels and similar — purple — 270° C

Screwdrivers and similar — dark blue — 300° C.

## Annealing

High carbon steel which has already been hardened and tempered can be softened by annealing. This is done by heating the metal to a cherry-red colour, then cooling it very slowly by burying it in ashes or sand. It will not be quite as soft as in its original state, but it will be workable, and can then be drilled, sawn, filed and so on.

\* *How to build a low cost, high heat blacksmith's forge* costs \$9 and is just one of many do-it-yourself instruction manuals available from Trendline Publications, GPO Box 1889, Sydney, New South Wales, 2001.

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# Jillaroo Farm Hints

Edited by Jill Redwood

**Jillaroo Farm Hints is a regular presentation of bush skills and farm tips. All readers are welcome to contribute. If you have any hints up your sleeve that you inherited from Granny or developed yourself, send them to Jill Redwood, RSD Goongerah, Victoria, 3888.**



## How to bug bunnies

If winter-hungry rabbits are dining on your fruit trees, simply wrap newspaper or sisilation around the trunk up to about two feet high (60 cm). Rabbits hate the feel or sound of the unnatural coverings. In case you forget to take these off come Spring, loosely tie thin cloth strips around the paper. These disintegrate, or will not be strong enough to strangle the trunk as it grows. Another rabbit deterrent is fat or grease mixed with sulphur.

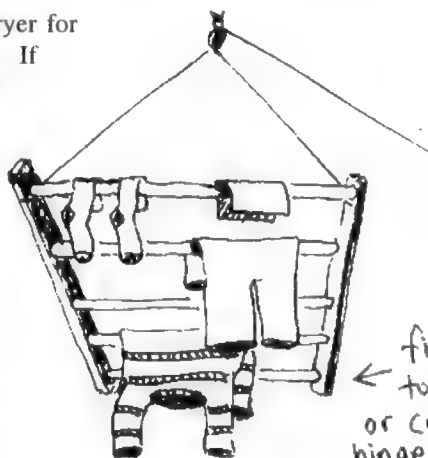


Bad news on two counts -  
RCV is on its way.

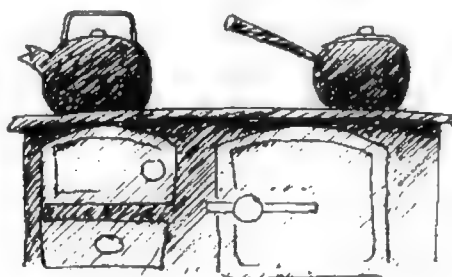
## An indoor clothes dryer

Make an indoor clothes dryer for winter from the side of an old cot. If this doesn't come your way at the local dump, fashion something similar from stripped willow rods and two pieces of thin timber (steer clear of buying dowel made from rainforest timber). Fix one end above head-height over the wood stove, pot belly or heater, and with some cord and a small pulley, fix the other end so it can be lowered and raised.

Hang damp clothes, towels or washing over the rods to dry. If you need to hang more than there's room for, use coat hangers to increase its usable space. This is a practical and efficient way to use the energy from winter cooking or heating.



fix this end  
to the wall  
or ceiling with  
hinges or cord



## Not only for teeth

A good, long-lasting and waterproof thread for sewing skins, rain gear, thin leather and so on, is dental floss.

## Cutting and storing green timber

It's a good idea to plan your wood supply two years ahead. This allows green timber to be cut, busted up and stored. Why bother cutting green timber? Cutting it is easier on the chainsaw; dead trees are less common than live trees, and are often essential habitats for certain wildlife.

There is also little competition for green wood, and after a strong wind or logging, there's no shortage of it. Store it where there's good ventilation or where it receives sun for part or all of the day. Some woodcutters believe that leaving fresh-cut timber out to weather helps wash the sap out and therefore seasons it more quickly. Rough-stacked wood also dries more quickly than tightly packed heaps.

## Materials for a pathway

Short rounds of dense long-lasting timber, set on end, make good stepping stones for a pathway. (Please be aware of the rarity of some of these slow-growing trees, before sawing one up.) You can also use rocks, but like some timber these become slippery when wet. Alter-

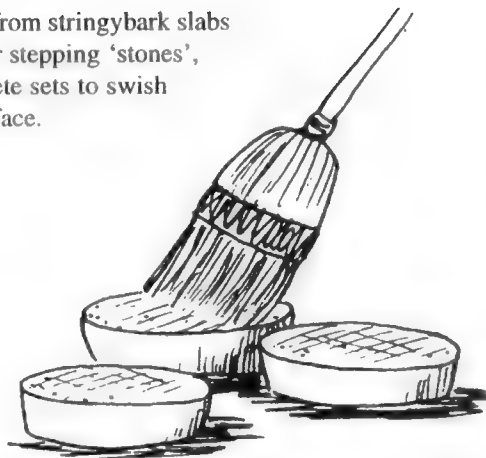
natively, make a non-slip walkway from stringybark slabs or cement. For a cement path or for stepping 'stones', use a straw broom before the concrete sets to swish fine-textured patterns across the surface.

**And now from our readers . . .**

### Hacksaws and water-saving toilets

Do you have trouble using a saw to cut timber? Are you always jamming the blade? Is your saw always blunt but you never get around to sharpening it? Forget about handsaws and use a hacksaw. With a hacksaw I can cut through wood four inches by four inches (10 cm by 10 cm) in just over 60 seconds. It doesn't jam because the teeth are small and the blade is thin. You can cut planks up to 18 inches (45 cm) wide by keeping the blade on about a 30° angle, and then turning the board over and cutting the other side.

To convert your flush toilet to a water-saving toilet, take the top off the cistern and have a look inside. Most toilets which have been made over the past 15 years have a



rubber suction cup inside which sticks to the inside floor. This holds the flush valve open until all the water is out. Remove this altogether by twisting it off its mounting. Put the top back on the cistern. The toilet will now flush only when the flush button is held in, for as long as it takes to farewell the bowl's contents, thus saving heaps of water.

Both of these ideas are tried and true, and I've found them extremely successful.

*Wayne Cassidy, Ambarvale, New South Wales.*

### Saving soap

Discarded scraps of soap add up to significant waste over time. When the cake is down to about one-fifth or less and tends to slip through the fingers, start a new block and drop the old cake on to the shower base. It will be soft enough to meld to the new block by the time you've finished showering. This is bad news for the soap companies and good news for the soap user.

*Vic Maddern, Murtoa, Victoria.*

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# Make your own stepladder

Bob Rich shows how one day's woodworking can produce a useful tool that could last 15 years.

by Bob Rich

Healesville, Victoria.

**W**HEN we were both building our houses, my friend Russell Crosser and I regularly swapped work. Once he made me a stepladder from recycled timber. Now, 15 years later, I still use that ladder outside for all sorts of rough work, although I have replaced a couple of steps and reinforced it with a threaded rod. Here is how you can build a sturdy ladder for yourself.

The skills you need are to:

- measure and mark out accurately;
- saw exactly to a line;
- cut and chisel grooves with a smooth bottom, to an exact depth; and
- hammer in nails.

The ladder can be of hardwood or pine. Hardwood is heavier, but is stronger and more durable. (*Editor's note: Try to recycle hardwood offcuts if you can, because this reduces pressure on our native forests.*) Pine needs deeper grooves to hold the steps. If the ladder is to get a lot of outdoor use, consider treated pine, but do not burn wood scraps and offcuts.

A stepladder is made of two parts. (Surprised?) One part is just like a ladder that leans against a wall. The usual slope is one unit of lean for four units of height. To mark out the correct angle for the foot of each stile, and the grooves to hold each rung, make a right-angled plywood triangle with one side four times the length of the other. The hypotenuse will give the correct slope.

Select two straight, faultless lengths of timber, with at least a 100 mm by 38 mm cross-section, for the stiles.

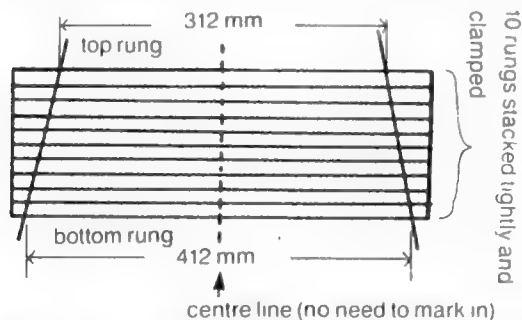


**Figure 1.** Marking out length of rungs for tapering a ladder. The method works for any number of rungs, as long as the stiles are straight and rung spacing is even.

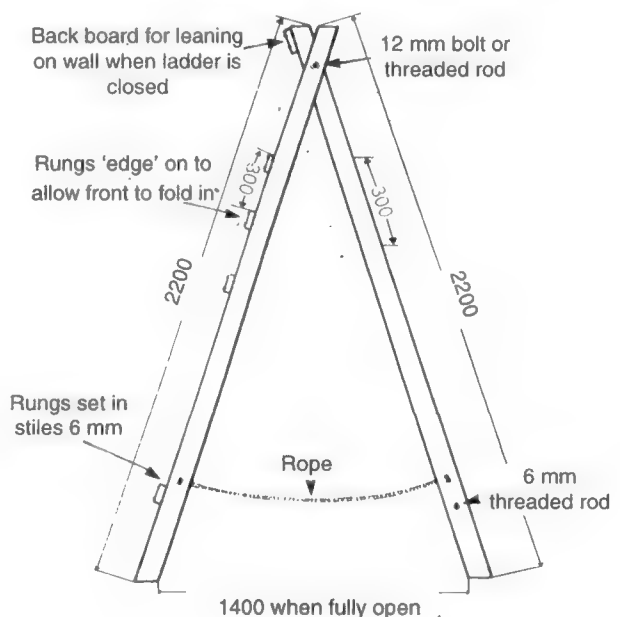
Decide on the inside face for each. The grooves to take the rungs will be cut there.

Clamp the two stiles together, with the inside faces touching. Score marks with a knife instead of drawing with a pencil, on the edges intended to be the front. First, square a line across at the bottom to indicate the foot of the ladder. Measure from this line to the top of the first rung, then from that to the top of the next one, and so on. The spacing from rung to rung should be 250 mm to 300 mm. Square a line across for each rung.

Unclamp the stiles and use the plywood square to mark in the top line of each groove and the foot of the stile. Lean the stile against a wall to make sure these lines look right. Mark out the rungs, cut them to length and number them. The rungs can be from recycled floorboards; 20 mm thick is adequate, but 25 mm is better.

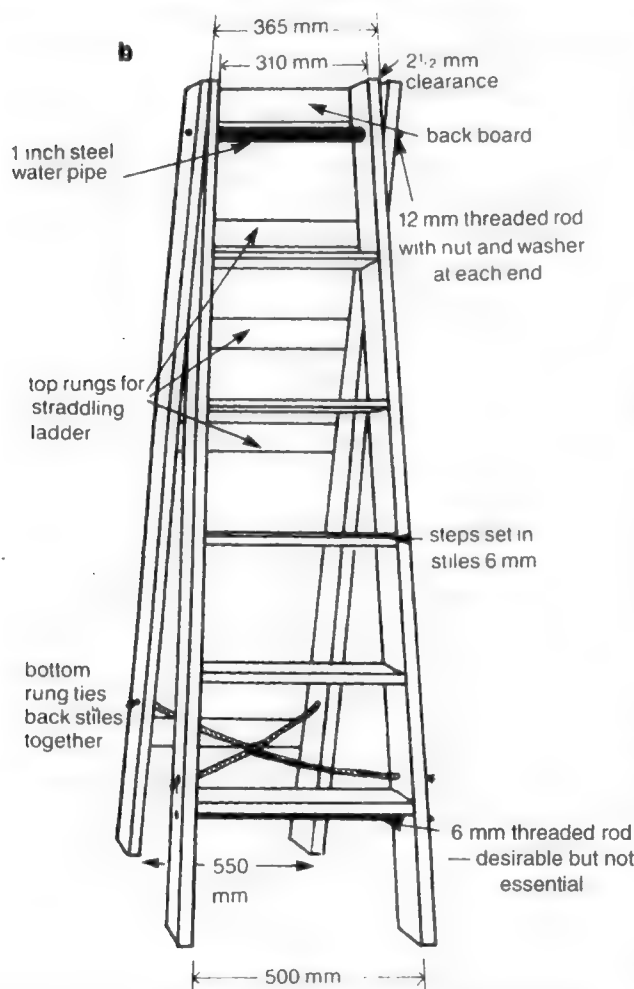
The ladder should be tapered from bottom to top. The rungs can be cut to the right size, with the ends at the correct angles (*Figure 1*). The bottom rung should be at least 400 mm long plus the bits to fit the grooves. The top rung should be at least 300 mm.

Make a stack of the pieces of floorboard to be made into rungs. Clamp them together. Mark in the centre, at right angles to the boards. Measure half the desired length



**(a) Side view**

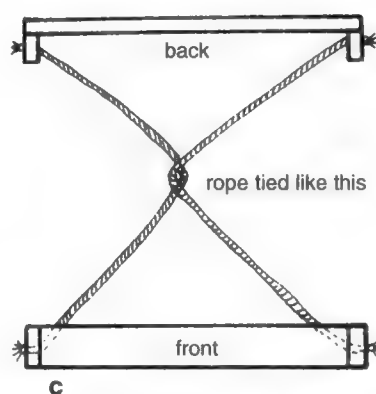
**Figure 2. Homemade stepladder.** (a) side view (opposit page). My homemade stepladder was designed to be straddled under a three metre ceiling — and for a thousand uses. It is robust, though heavy. All timber is secondhand 75 mm x 25 mm (3 x 1) hardwood. (b) Front view. (c) The two halves are joined together with rope.



each way on the top and bottom boards. Join these marks. This will give you the correct lengths and angles to cut for any number of steps, and any taper, as long as the steps are evenly spaced. Use each rung to mark out the width of its two grooves. This way you can get an exact fit even if the rungs vary in thickness.

If the stiles are hardwood, grooves can be six mm deep. They should be deeper in pine, say ten mm. A groove should accept its rung without needing force, but not be loose. Having cut the rungs to length, and excavated the grooves, you can now assemble this half of the stepladder.

Drill two holes in each groove, and through into the end of the rung, to be tight for 50 mm nails. Use galvanised nails if the ladder is to get outside use. Gluing the rungs into the grooves increases strength enormously. PVA glue is great for inside use, while 'Liquid Nails' or 'Flooring Adhesive' is suitable for the outside. Incidentally, screws are inappropriate here. A nail holds as well as a screw in end grain. The bigger hole needed for a screw can weaken the rung.



The back half of the stepladder is almost identical, with two differences; both dictated by the fact that the front part has to fit into this back half when the ladder is closed. The back half has to be wider, so that the front half is a loose fit within it. The rungs on the back half have to be fitted standing on edge, along the rear edge of the stiles. They should be set-in at least six mm. This back half needs at least one rung, low down, merely to hold the stiles together. It is an advantage to have a few near the top, so the ladder can be straddled. Of course, you can fit steps all the way as for the front.

The two halves are held together by a 12 mm threaded rod through loose holes at the top. It is a good idea to use locknuts at each end. A suitable length of 25 mm steel water-pipe must be inserted as a spacer (Figure 2), otherwise the pressure of the nuts at each end of the rod will deform the stiles and make the ladder difficult to open and close.

A diagonal brace on each half is a good idea to stop the ladder from eventually slumping to the side, but it does get in the way of feet. Another way is to insert a length of six mm threaded rod low down, under a tread. Tie the two halves with rope, as shown (Figure 2).

One day's enjoyable woodworking should give you a tool that should last at least 15 years!

*Drawings by Bob Rich, from the Earth Garden Building Book, published by Viking, 1991.*

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# Making fruit wines

## – Part 2 –

In EG 95, Barbara Perry discussed the ingredients and the equipment you need for making wine at home. Now she explains how to go ahead with it.

by Barbara Perry  
*Castlemaine, Victoria.*

### Make up the must

**Step 1:** The must is the mix of ingredients that starts your wine. You can either use straight juice or the more usual method which is chopped-up fruit. Put the fruit into the fermentation vessel, along with the acid (if any), the pectinase, and the crushed Campden tablet. Because recipes are usually for a gallon (4.5 litres) of wine, add 3.5 litres of water and stir. Cover and leave for 24 hours.

### Activate the yeast

**Step 2:** Mix a teaspoon of yeast with 100 ml of water at 25° C. After 15 minutes add 100 ml of must. Leave until it appears active — frothy bubbles will appear.

### Primary fermentation

**Step 3:** In a separate container put the sugar, yeast nutrient, and tannin (if any). Pour in one litre of boiling water and stir until sugar is dissolved. Cool to 25° C, and pour over fruit. Stir the active yeast into the must, replace the cover and leave in a warm place with a temperature of around 20° C to 25° C. At first you may think nothing is happening. This stage is known as the 'lag phase'. You may notice a milky appearance in the must.

Then comes the primary fermentation. This can be quite vigorous. There are bubbles of gases, and you can hear a hissing noise. If the must includes the pulp of the fruit, it will tend to rise to the top. It is important to stir this back into the must two or three times a day, otherwise this 'pulp cap' may become a breeding ground for unwanted organisms.

### Secondary fermentation

**Step 4:** After a few days (see recipes for the length of time), strain through a nylon sieve to remove pulp, and put



Barbara Perry with a flagon of fruit wine.

the liquid into sterilised glass flagons (*Figure 1*). Leave about two inches (50 mm) of space at the top, and fit a rubber bung with an airlock inserted into the neck of each flagon. Any excess can go into a sterilised bottle plugged with cotton wool. This can be used for topping up flagons as fermentation subsides. This stage is known as the secondary fermentation, and may last for weeks, or in some cases months! Please note that each chamber of the airlock should be half-filled with water to allow the carbon dioxide being formed to escape, and to prevent oxygen from entering. The ideal temperature for the secondary fermentation is between 18° C and 25° C.

### Racking

**Step 5:** Fermentation is usually completed when all bubbling through the airlock has ceased. By this time, sediment will have formed on the bottom. Remove this by racking (*Figure 2*). Using a plastic syphon tube, insert one end into the container without disturbing the sediment (otherwise known as the 'lees'). Suck on the other end, transferring it to another sterilised flagon as the liquid flows out. Have this second flagon lower for gravity-feed action to work.

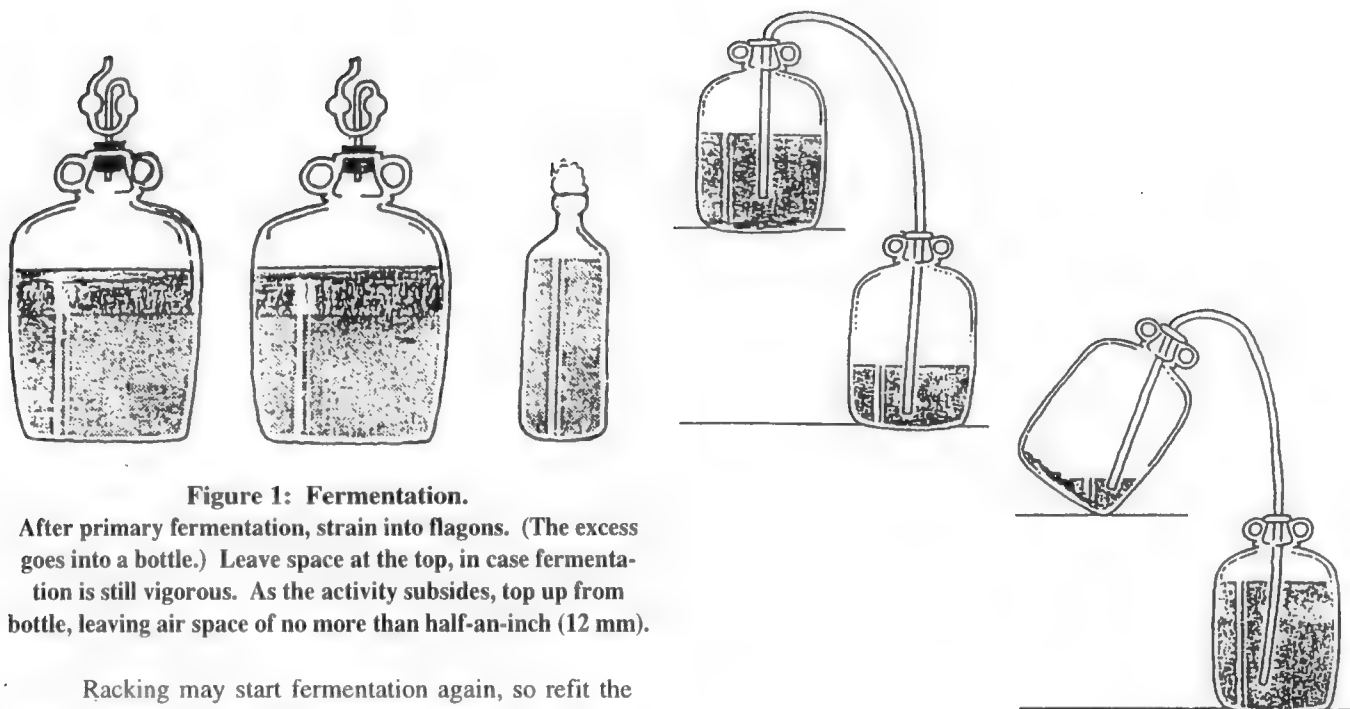


**Figure 1: Fermentation.**

After primary fermentation, strain into flagons. (The excess goes into a bottle.) Leave space at the top, in case fermentation is still vigorous. As the activity subsides, top up from bottle, leaving air space of no more than half-an-inch (12 mm).

Racking may start fermentation again, so refit the airlock. You will need to do this again at least once more, at about two-month intervals, until no sediment remains and fermentation is completely finished.

### Clearing and stabilising

**Step 6:** Replace bungs with cork stoppers, leaving only a quarter to a half-inch (six to 12 mm) air space (Figure 3). Store in a cool place until crystal clear.

### Bottling

**Step 7:** Soak corks to soften them. If you don't have a corking machine, tamp corks into place with a short

**Figure 2: Racking.**

Carefully syphon the wine into another sterilised container, leaving behind the lees. Top up with wine from bottle and replace the airlock.

piece of dowel and a mallet. Use only straight-sided wine corks. Label bottles, and place on their sides. If you can resist the temptation to open them sooner, leave for a few months to mature further before drinking.

The following are some simple recipes from my

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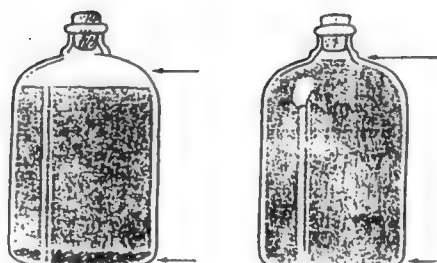
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Figure 3: Storing.

booklet *Making Wine at Home - a Beginner's Guide*. You might also find books on fruit wines at your local library. Just follow the steps outlined above.

### Apple, pear or quince

3.5 kg mixed eating and cooking apples, chopped, but not peeled

or 3.5 kg pears, ripe but still firm

or 3.5 kg ripe, wiped quinces

225 g raisin or sultanas

900 g sugar

half-teaspoon citric acid

one teaspoon pectinase

4.5 litres water

one Campden tablet

half-teaspoon yeast nutrient

one teaspoon wine yeast.

- Let the pulp ferment for three days (primary fermentation).

### Kiwi fruit

900 g Kiwi fruit, peeled and chopped

1.2 kg sugar

half-teaspoon citric acid

half-teaspoon pectinase

4.5 litres water

one Campden tablet

half-teaspoon yeast nutrient

half-teaspoon tannin

one teaspoon wine yeast.

- Let the pulp ferment for three days (primary fermentation).

### Rhubarb

1.5 kg rhubarb, cut into two-inch (51 mm) lengths, and bruised by a mallet

1.2 kg sugar

half-teaspoon pectinase

4.5 litres water

one Campden tablet

half-teaspoon yeast nutrient

one teaspoon wine yeast

- Let the pulp ferment for four days (primary fermentation).

### Orange

juice of 15 to 20 sweet oranges

four litres water (add three initially)

1.2 kg sugar

half-teaspoon citric acid

half-teaspoon pectinase

one Campden tablet

half-teaspoon tannin

half-teaspoon yeast nutrient

one teaspoon wine yeast.

- Let ferment for three days before storing in flagon for secondary fermentation.

• For details about supplies and making fruit wines, or for Barbara's book, you can write to Barbara Perry, Country Winemakers, PO Box 438, Castlemaine, Victoria, 3450.

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# From Spade To Blade

Gary Thomas' Garden Recipes

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## Soulful thoughts on waste

ONE OF my favourite pieces of mail is the seasonal delivery of the Patagonia clothing catalogue. I find a nice quiet corner somewhere, open the package and spend a pleasant half-hour drooling over the 'iron worker' shirts, alpine socks and the 'Bombachas' day-in/day-out work pants. It's the stuff of life's quality. And in the last catalogue there was an environmental note on the subject of waste and how the clothing company does what it can to 'reduce, reuse and recycle'. This led me to reflect on our efforts in this sphere. A nice customer of ours told me recently how he envied us our occupation in a 'clean' industry. (I think he was some type of chemical engineer). I responded with a tale of Brunswick Street, Fitzroy, in Melbourne.

Earlier this year I cadged a Saturday night off to go to a concert in Melbourne. Afterwards, we went to Brunswick Street for some dinner. There was a mini-festival in progress. As we walked up and down the street I was struck by the teeming amounts of disposable containers overflowing from the top of bins and oozing along gutters and footpaths. I then felt quite sad to think what the backyards of all those cafés and restaurants might look like. (Admittedly, it had been a particularly soulful concert.) Bruce (our nice customer) dismissed my concerns. In his view we remained clean, relative to the heavy metals and petroleum industries of his experience.

He may be right, but that's no excuse for complacency. We all need to do better all the time. That's the bottom line. So over the past few years we've done what we can to improve our waste disposal. Rubbish is separated. All organic matter goes into bins to be fed to the local chook population, and bottles, tins, glass, recyclable plastic and cardboard are collected for reprocessing. Rather than buy food-storage containers, we reuse until death all food-grade plastics. Over time, we have changed suppliers of things such as

detergent so they can be (a) more biodegradable, and (b) able to be bought in large quantities, thereby reducing the volume of

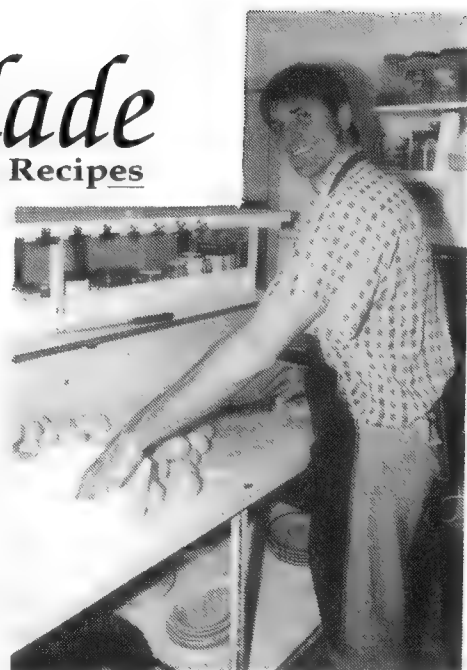
plastics received. We also choose sturdier containers that can be cleaned and reused, for example as water containers.

Now, I'm not trying to set myself up as anything special here. There are so many areas of waste to consider, and our response has been nowhere near good enough, sometimes because of the perceived cost and effort involved, and sometimes because we simply can't think of a way to do it better.

However, I do know that we've reduced our waste to the local tip by two-thirds, and that must have an economic as well as an environmental impact. The food industry is market-driven, and the success or failure of any restaurant is decided by the 'bums on seats' benchmark. So if you're walking down Brunswick Street in Fitzroy, trying to decide where to eat, ask a friendly waiter if his or her particular establishment separates and recycles its waste, or if it all just goes, hurly burly, into the backyard dumpster. And if the dumpster rules, make sure the management knows why your bum isn't going on their seat. Let the changes begin!

## Tofu timbale

In EG 88 I outlined a lemon grass and chilli sauce to be used on potatoes. I've gone off chilli a bit since then, and I'm down to a third of the prescribed amount in that sauce. It still tastes great, though. Make that sauce and keep it gently simmering until all the water is evaporated. It should be brown with little red flecks, and slightly oily.



Set aside to cool. Break up and crumble your recommended amount of your favourite tofu in a large mixing bowl. Add a handful of chopped coriander and some parsley. Fold through the lemon grass sauce to taste. I use a fair dollop I must admit, at least half-a-cup per person. Sift in a tablespoon of self-raising flour for each serving and mix thoroughly. I do this for three reasons: the flour sops up excess water from the tofu; the dish keeps vegan integrity; and the flour supplies a certain lightness to the finished product.

Alternatively (and by the way, traditionally), a timbale is lightened and set by the addition of whipped egg whites. Whip one per person until soft peaks form, and then fold *gently* into the tofu mixture. If you do this, don't worry about the flour. Next, oil some ramekins or cups and fill each with the tofu. Place in the top of a vegetable steamer for 20 minutes. Place a piece of (greaseproof) paper over the cups to keep the condensing water out. Remove from the steamer and set aside for five minutes to firm. Use this time to blanch some leafy greens, preferably Asian: bok choy; tsat tsoi; Chinese broccoli; even silver beet will do. Squeeze out excess water and arrange on serving plate. Run a knife around the edge of the timbales and turn out upside down onto the blanched greens. You can make a quick sauce of coconut milk to which is added a little honey, pepper and salt. It's better to do this while the timbales are steaming. Pour the

sauce over the plate and garnish the dish with some finely cut carrot strips. This is a small meal or an entrée.

## Sticks and stocks

In the last edition of *Earth Garden*, I wrote about fried noodles (which are still very popular around here by the way) and a good, cheap brand called Rice Stick, which somehow got printed as Rice Stock. A couple of people asked me about rice stock after that but I have neither a clue

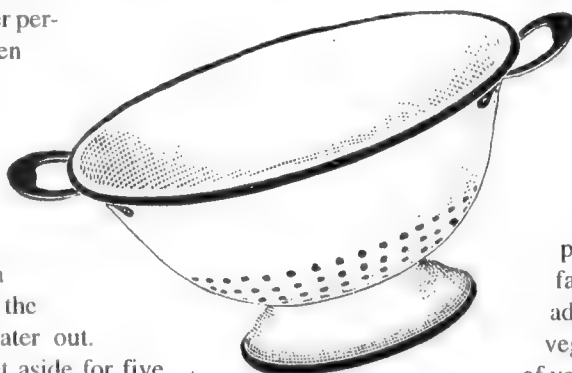
nor any desire to try — I'd rather use rice wine myself.

However, I did think a bit about vegetable stock and the making of good ones. I've always been on the lookout for a definitive vegetable-stock recipe, without any real success to date. They're all a bit wishy-washy, if you'll pardon the pun. In my experience, the biggest fault in making stock is when cooks add too much water for the amount of vegetable matter. I reckon a kilogram of vegetables to a litre of water is a good ratio.

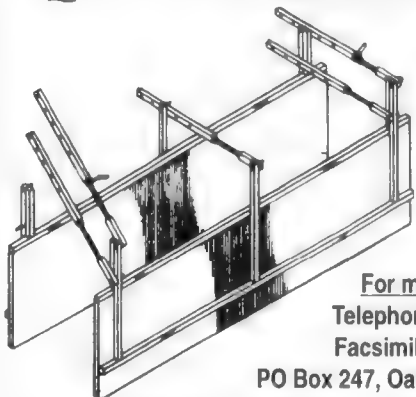
**Vegetable content:** Well, this is pretty loose — you can use onions, carrots and celery of course; maybe a whole roasted corm of garlic; a few cauliflower leaves or a small amount of green cabbage; parsley or parsley stalks; and apple and cucumber trimmings are also good. It's more a matter of what *not* to use. Don't use any belladonna vegetables. Capsicums and eggplants will become bitter, tomatoes have far better uses, potatoes will break up and make the stock cloudy, as will other 'soft' root vegetables.

**Method:** To make strong stocks appropriate for risotto or French onion soup first brown the vegetables in a big pot. A slick of oil will stop the vegies sticking to the pot. Clean the vegies, chop roughly and throw into the pot over a medium heat.

Stir occasionally because they soften and begin to



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break down; thirty to forty minutes is a reasonable time for this bit. Add the water, stirring constantly. Make sure no bits are sticking to the pot. This is a kind of caramelisation that enables the vegetable flavours to transfer to the water. Simmer gently. Every teaspoon of steam that escapes means that much less stock at the finish.

An hour or so is enough to transfer the flavours into the liquid. Don't be frightened to add a little more water if needed. Also, a piece of dried seaweed or a spoonful of miso (brown rice miso is good) thrown in the pot for the last ten minutes will give 'that certain piquancy'.

**Straining:** All that good work will be wasted if the straining is, well, pathetic. Using a big colander over a big container, pour off the excess liquid. That's the easy part. You're now looking at a rendered mess of vegetable particles. With very clean hands plunge in and squeeze. Squeeze, pulp, mangle, strangle. Press as much liquid out of the vegies as you can. The more you press, the more you get. Pour through the colander to join the other stock. Notice how much thicker and darker this pressing is? Press again. Press for all those energy bills you wish you wouldn't pay. Press for new rake handles and car alternators. Press for the State Deficit Levy. Press for school uniforms and Nintendo video games. Press. Press. Press. When you're a little calmer give the pressings one last press, rinse in a little water and strain.

Give the warm pressings to the chooks who will probably enjoy them on a cold Winter's day, and leave the stock to settle. I usually discard the bottom centimetre or so of stock. It's sometimes a bit pulpy and nearly always gritty. There should be plenty of liquid without it. Okay, so maybe stock-making seems a bit of a process. So use plain, old reliable water. Or make up a big batch and freeze most in little pouches for use another day.

## Steam beetroots to keep sane

I shouldn't think there is any need to convince anyone of the nutritional excellence of beetroot. We all know beets are the true power source of vacuum cleaners and the reason we all get up in the morning. I daresay the explanation for all those recently beached whales is because they know beetroots dwell on land. We all try to leave our beetroots in the ground until we're ready to

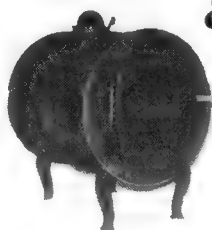
use them. Too many kids seem to prefer the canned variety to the real thing. And we all face the choice of going mad or getting around that somehow. Well, oven steaming will keep us sane.

Top and tail the beetroots of your choice and give the skin a good scrub. Do not peel. Wrap individually in alfoil, just enough to cover them, but in sensible squares that can be used again. Bake on a cake rack in a 400° F oven until just soft to the touch, about one to one-and-a-half hours. Remove from the oven and allow to cool, still wrapped in the foil. Remove wrapping, slice and defy a canned-beetroot-loving kid to spot the difference. "No, my son," you can say. "Mr Edgell is now cooking all his beetroot with the skin on."

You can eat the beets hot, of course, but I prefer them cold, maybe in a salad of greens, sprouts and grilled zucchini with a big

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**AUSTRALIAN  
BUSINESS & MONEY MAKING  
OPPORTUNITIES**

First Published Feb 91

EG1

blob of skordalia (EG 92) on the side. I've found these oven-steamed beets keep very well in the fridge just wrapped in the foil for a week. Alternatively, puree and fold with some ricotta cheese and breadcrumbs to make a ravioli filling. While the ravioli are cooking, whip up a quick cream and fresh chive sauce to pour over the pasta pockets. For a very different flavour, add a blanched teaspoon of orange rind per person to the sauce while it cooks. Tell your guests you created the dish while on holiday at the Savoy in London. Make sure you tell them you were only kidding before they go home.

### An apology for the former A-G

Finally, I'd like to commiserate with poor Michael Lavarch. I'm one of those people outside the mainstream who never considered for a moment Federal Labor would lose that election. And at 11.05 pm on Saturday March 2nd, when I realised Mr Lavarch was no longer Attorney-General, no longer a Government minister, indeed, no longer a Member of Parliament at all, well, just for a moment I thought it was all my fault. I thought that perhaps my kind words of nutritional support (see 'A get-well breakfast for the A-G' in *Spade to Blade*, EG 95) were the catalyst that had brought down a government. Then I realised I was just being stupid.

Mr Lavarch, despite the considerable disappointment you must be feeling, I hope you feel a tinge of relief. This may be the opportunity you need to fix those bad dietary habits. Stick with the beetroot; it is a well-known remedy for electoral bad-smell, as are foods that are closely removed from the Earth. Only eat real eggs, and in moderation. I hope this helps to ease the pain. If not, drink a lassi a day until it does. Cheers.

If you wish to sample Gary's cooking, drop into the Cosy Corner Café next time you are in Hepburn Springs in Victoria. You might even get to help him press his vegie stock.

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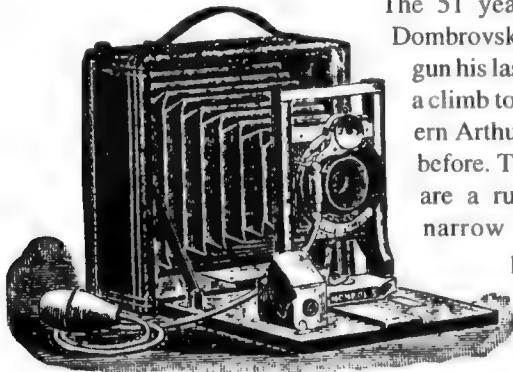
I have included with my entry: ☐ copied photographs of my entry ☐ an explanation and description of my work

**RULES & CONDITIONS**

1. All entries must be the original work of the entrant. 2. Photographs of the work will be the accepted initial means of entry for the Prize. 3. A statement of authenticity, verifying that the work has been created by the entrant, must accompany each entry. 4. All entries for the second annual Prize must be received at the office of *Earth Garden* magazine (RMB 427 Trentham, Victoria, 3458) by 5 PM on 15 January, 1997. 5. The judging panel will consist of Michelle O'Brien of Chewton, Sholto Turner and Lisa Phillipson of Castlemaine, and Alan and Judith Gray of Trentham, Victoria. 6. The judges' decision will be final, and no correspondence shall be entered into. 7. Entries should be accompanied by concise descriptive notes of the work and the entry form above. 8. Photographs of the entries should be black & white or colour prints (not negatives), which may be reproduced in *Earth Garden* on announcement of the winning entry. All photographs should be **copies only** which do not need to be returned to entrants. 9. Further verification may be necessary if the judges are not satisfied as to the authenticity of an entry. 10. **FUNCTIONAL SCULPTURE** is a factor which will be in the minds of the judges when assessing entries, however, the range of possible types of entries is broad. 11. Written and photographic works are not eligible for entry in the Prize. 12. The winner shall be notified by phone or mail, and can choose to receive the Prize in cash, or in tools of their choosing (or a combination of both), to the value of \$750.

# Vale Peter Dombrovskis

**P**ETER Dombrovskis will be remembered as one of the great Australian photographers of this century. He died of a heart attack in the rugged south-west of Tasmania on 28 March on a trip in the Western Arthur Range to collect images for his 1997 calendar. He apparently fell up to four metres and his body was found in Descent Gully, near Mount Hayes, by rescuers who searched for him in difficult weather conditions.



The 51 year old Mr Dombrovskis had begun his last trip with a climb to the Western Arthurs the day before. The Arthurs are a rugged and narrow chain of peaks, pitted with glacial lakes and tarns.

Mr Dombrovskis was assisted by a porter who carried his Linhof, large-format camera equipment to the range's main ridge line before leaving him.

Peter Dombrovskis photographed the Tasmanian wilderness for 30 years. He was born in 1945 of Latvian parents, and came to Australia in 1950 as a post-war refugee with his mother. He was influenced at an early age by Olegas Truchanas, who helped him develop the skills necessary for mountain and river travel in wild country, and was also his photographic mentor.

Peter lived at Fern Tree, above Hobart on the slopes of Mount Wellington, with his second wife and a fluctuating population of five children and two step-children. His work is represented in the collections of the National Gallery of Victoria, the Tasmanian Museum and Art Gallery, the Australian Heritage Commission and in private collections. Peter was also an honorary fellow of the Australian Institute of Professional Photographers.

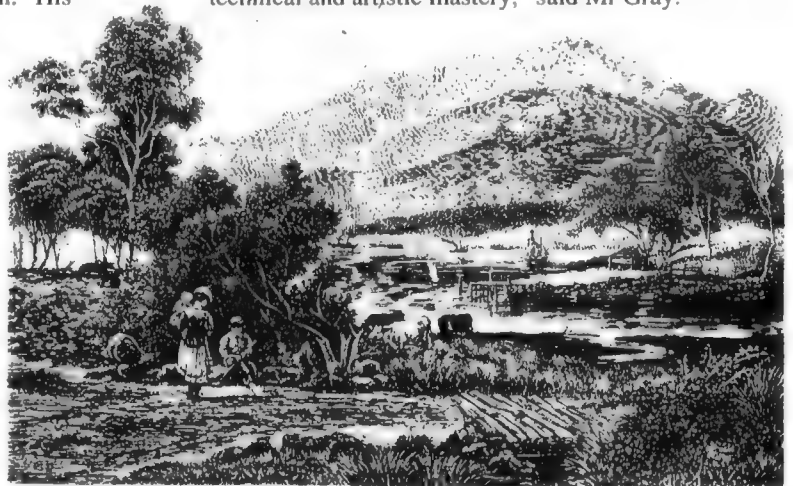
His death has every parallels with that of his mentor, Olegas Truchanas, a founding inspiration for the environment movement in the 1960s. Both came from Baltic immigrant families and both died alone on photographic trips in the south-western region. It was Peter Dombrovskis who found Olegas Truchanas's body in the Gordon River. In the years since, Mr Dombrovskis succeeded as the master of a 'school' of wilderness photography.

Rock Island Bend, on the back cover of this edition of *Earth Garden*, is along with 'the Gordon Splits' one of his most famous images, and would have been destroyed had the Gordon-below-Franklin dam proceeded in 1983. Peter Dombrovskis's picture was reproduced in major newspapers around Australia at the pinnacle of the 1983 federal election campaign, and helped bring an appreciation of these wild places into many suburban households which had previously been untouched by the concept or understanding of wilderness. It also helped ensure that people voted to save the Franklin after a popular peaceful campaign which, in Australian white history, has few parallels other than with the Eureka Stockade.

"Many people of my parents' age say they remember what they were doing when JFK was shot. What I — and many people my age — remember is the first time we ever saw a Peter Dombrovskis poster. I was working as a storeman in a factory in Smith Street, Collingwood in 1980 and when I walked past the shopfront of The Wilderness Society for the first time, I was dumbfounded by the sheer beauty, force and wildness of the image of 'the Gordon Splits'. I know many other *Earth Garden* readers have had a similar experience, and very few words or images in anyone's life can have such a powerfully motivating effect," said *Earth Garden* publisher, Mr Alan T Gray.

Peter also worked on the Daintree campaign in North Queensland and many other wilderness causes, and many of his images have been produced in posters, calendars and diaries to help fund vital environmental campaigns.

"He will be sorely missed by a grateful and saddened Australian environment movement, by many Australians whose lives, homes, and work places are brightened by his images, and by the many fellow photographers he inspired through his technical and artistic mastery," said Mr Gray.



Peter lived with his family at Fern Tree on the slopes of Mount Wellington.

# EARTH GARDEN REVIEWS

BOOKS AND MUSIC

Edited by Judith Gray



## **From Utopian Dreaming To Communal Reality (Co-operative lifestyles in Australia)**

**Edited by Bill Metcalf  
Published by University of  
NSW Press, (02) 398 8900.  
\$29.95, paperback.**

This is indeed a challenging book. It is a most fascinating examination of communal living in Australia. Dr Bill Metcalf is a sociologist and social historian who would be familiar to many longer-term EG readers. He begins this book with an excellent 'short history' of alternative communities in Australia. Following this, ten people who are currently participating in communal living, put their stories in their own words. How they came to their alternative lifestyles and what the whole thing means to them. They are ten truly remarkable adventurers in life. Finally Dr Metcalf summarises and draws conclusions.

There were many communal experiments embarked upon in the 1890s in Australia. They were based on socialism rather than religion and were often established on a poor standard of land, by ill equipped enthusiasts. Sadly all these groups collapsed after only a few years. Dr Metcalf goes on to summarise the period from 1900-1970s and establishes that alternative communities are thriving around Australia. Their underlying motives can be classed predominantly as spiritual, political or secular. Some are in fact well into their second generation!

I found the most moving story to be that of Glen Ochre. Glen was abused as a child and trained as

a social-worker. She has an enormous sense of compassion for people along with a connection to the Earth. Together with a small group of people Glen founded 'Common-ground' (which was mentioned in EG 95, page 49) near Seymour in Victoria. Glen has had a tough life to say the least but she has found a sense of strength and purpose and learnt a lot about herself along the way. In fact that would have to be the underlying message in this book: to create the situation in which we wish to live we must understand ourselves and take control of our own direction.

The success of this book lies in the contrast between each 'Case Study'. Reasons and goals are very different for all ten people, but they have each found a communal lifestyle that suits them, be that in Western Australia or Queensland. It is a pity that this book is so expensive because it's one which should circulate broadly through the mainstream community. This book proves there are real alternatives: if you've ever considered communal living, it's a 'must read'.

## **Returning To Learning? (Studying as an adult: Tips, traps and triumphs)**

**By Caroline Brem  
Published by Allen and Unwin  
\$12.95 paperback.**

If you have recently decided to return to study or if you feel you need just a little push to get there then this book is ideal. Caroline Brem has a wonderfully relaxed but confident style of writing. This book is

applicable to all kinds of study options, for example TAFE, university or correspondence. The book is divided into four parts. The first is the personal: how to find the confidence and motivation you will need. The second is the preparation: how to organise your time and relationships around study. The third is getting the most out of your studies. Finally the fourth looks at essay writing and exams.

Caroline creates four categories of people who are studying. The activist, the reflector, the theorist and the pragmatist. Once you have decided which group you belong to you can identify your best learning environment. For example reflectors learn best when they can watch and think and have no tight deadlines. They also do well when they have a more structured learning environment.

Most importantly Caroline says it doesn't matter if you are working towards a PhD or if you are doing pottery at the local learning centre. The most important thing is that you enjoy yourself. It couldn't be simpler than this.

## **The Water You Drink By John Archer Published by Pure Water Press**

**Phone (043) 415 149  
\$13.50, paperback.**

In this book John Archer has set out to provoke some serious discussion and debate about the quality of Australian domestic water supplies. John asks: "Why is Australia one of the few developed countries without

a Safe Water Act? Consumers should settle for nothing less than legally enforceable standards of drinking water and full public accountability, especially in view of the privatisation of our water supplies." He also argues that water authorities prepare massive cover ups carefully compiled by public relations units in order to "lull the consumer into complacency".

Many cities including Sydney, Brisbane, Adelaide and Perth, draw their water from contaminated and polluted catchments where sewage effluent is a component of the raw water. *The Water You Drink* identifies lead as a serious contaminant. Despite regular reassurances about low lead levels in drinking water, two recent studies have revealed that the water that flows when a tap is turned on first thing in the morning can contain high levels of lead. In Sydney some levels were 32 times higher than those usually found in Australian water supplies.

Other areas discussed are toxic treatments and pollutants between treatment plants and the tap. If you are a concerned consumer and you want to understand domestic filters and how to choose bottled water, this book is for you.

All too hard? Before you rush out and buy a rainwater tank to catch those precious drops from the heavens you have to look at the

chapter on water tanks. John in his up-front and thorough style has assessed all the possibilities, galvanised steel, fibreglass, concrete and the new 'aquaplate' which is galvanised steel with a polymer lining. He has compared prices and durability. What about calculation of requirements?

In Melbourne the current average daily consumption of water in a two person household is 370 litres! John also warns of the dangers of using treated pine as supports for solar hot water panels.

The questions raised in this book are very serious. John has researched in fine detail and presented many hard facts in a very provocative style. May we get some answers!

### **Attracting Frogs To Your Garden**

**by Kevin Casey**

**Published by Kimberley Publications, phone (073) 343 6589**

**\$14.95, paperback.**

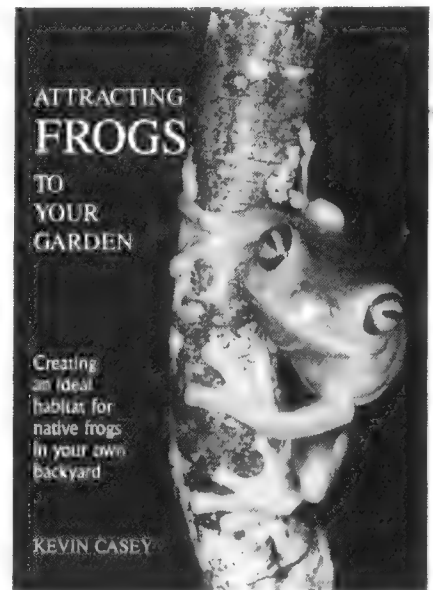
This is a marvellous little book that could best be described as a complete guide to frogs. If you have ever enjoyed the discovery of a frog in your garden or if you would like to find out more about encouraging frogs in your area, this is the ideal book.

It is very attractively presented in paperback format with a number of beautiful colour photographs as well as black and white. It is 130 pages jam packed with information.

Kevin Casey is obviously an enthusiast and writes in a straightforward style. He looks at all aspects of the frog world including spotting and identifying, using frogs as pest controllers, raising tadpoles, building a pond and much more. 'Frog Scaping' your garden can in fact be very important for the survival of frogs as they face rather an uncertain future.

Pesticides and destruction of habitat have seen to the extinction of some species and put many more at risk. So what can we do?

The first and most obvious requirement for a frog friendly gar-



den is permanent water. Kevin explains this need not be a large body of water; more importantly he says it should be surrounded by lots of vegetation, including shady trees, clumps of grass and mossy crevices. Plant sprays and weed killers are out!

The only true toad in Australia is the introduced cane toad, and Kevin looks closely at this very destructive pest.

Cane toads are a major menace to native wildlife because they will eat anything they can stuff into their mouths, not to mention the fact that they are extremely poisonous.

Kevin explains how to recognise eggs, tadpoles and the mature toad itself. He suggests the most humane way to dispose of a cane toad is to put it in the freezer! (Yuk). Congratulations to Kevin Casey for such a complete and enjoyable book.

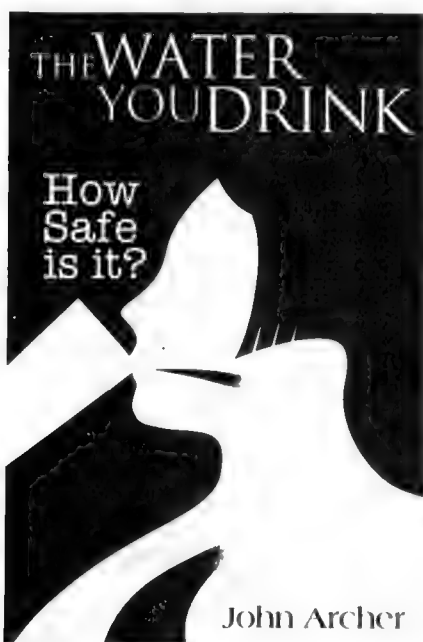
### **The Art Of Tassel Making** **by Susan Dickens**

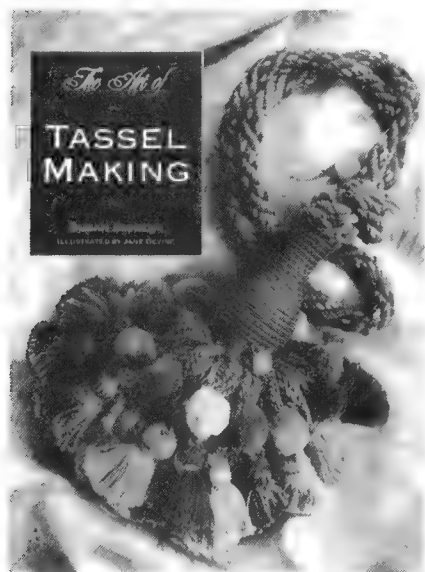
**Illustrated by Jane Devine**

**Published by**  
**Allen and Unwin**

**\$29.95, large format,**  
**colour, paperback.**

Susan Dickens is an embroiderer who fell in love with tassel making after visiting passementerie houses in France. *The Art Of Tassel Making*





Susan explains the construction of your tassel and there you have it. A complete guide to tassel making. Included are extensive chapters on embellishment and estimating how much and what type of thread is needed.

The highlight of this book is the 'flip designing'. The pages on which examples of tassels have been illustrated are cut horizontally. Dividing suspension cord from head and head from skirt, makes it possible to mix and match all the three elements of a tassel. This demonstrates the endless possibilities and offers much inspiration. Susan also looks closely at the different effects of the raw materials used: you can use anything from string to silk! This book is certainly value for money and an exciting addition to anyone's craft library.

**Making Of A Garden  
by Rosemary Verey  
Published by Hodder Headline  
\$45, large format,  
hard cover, colour.**

Rosemary Verey is an internationally-renowned English gardener and garden designer. She is not only a plants woman, but also a marvellous writer. This book is the story behind the creation of her magnificent garden at Barnsley House in Gloucestershire, England.

So what relevance does the designing and execution of an English garden have to *Earth Garden* readers? This book is about the learning process of gardening. It is about creating an overall unity in a garden whilst contrasting the different "living spaces". Moving through the garden at Barnsley House, Rosemary discusses her practical experience of the evolution of her garden from the casual areas to the more formal. The whole garden is very inviting.

Rosemary looks at the shrubs and climbers by the house, the knot garden, the temple and pool garden, the frog fountain, garden walks, the 'wilderness' and potager gardens, just to name a few. Throughout the whole book the focus is on recurrent flowering and foliage, colour and structure.

This book couldn't be discussed without reference to the stunning colour photographs and water colour plans. Rosemary's layout of plants is fully understood when observing the colours and textures in the photographs.

Don't be fooled by the 'coffee table book' beauty of this publication — it is very much a how-to manual, looking at companion planting and good under planting. Rosemary doesn't forget the importance of scented and edible plants close to the kitchen door.

The chapter on 'the potager' is simply inspiring. I was very pleased to read that Rosemary's rustic brick pathways through the potager took several years to complete.

She visited demolition sites to collect the bricks and laid them whenever she had a spare moment. (Remind you of a garden you know?) The finished product is simply delightful, and an inspiration to any gardener, regardless of their garden type. Rosemary has used standard gooseberries, standard roses along with trained apples and pears to create an all year round framework for the ordered but beautiful veggie garden.

If you enjoy looking at English gardens or if you spend as many hours as I do contemplating garden design, then this book will undoubtedly delight you.

looks at every aspect of creating elegant French tassels. No detail is left unattended. Along with illustrations and photographs this book is itself a construction of great beauty.

The French form of tassel making evolved during the Renaissance. Furniture was often finished with braid and tassels which were handmade from richly coloured silk and woollen threads.

Through the ages tassel design has gone through many phases and in the 1990s the hand crafted tassel has become popular once again. When asked: "What are tassels for?" Susan answers by saying "Nothing. What do you do with your paintings?" Tassels are for pleasure.

The book is divided into logical steps that makes the art of tassel making easy to understand. Susan starts by looking at design and colour. It is important to make sure your colour combinations are balanced.

The best way to do this is to twist a few strands of the different colour together to see if they work. The next step is to make the head of the tassel. This is the turned wooden base on which your tassel is built up. The head can be decorated in a number of ways, all of which are discussed.

The 'skirt' is made next — on a template — and the suspension cord is twisted. Again a number of methods are explained. Finally

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### THE BOOK CONNECTION

1 Sterling Street, Dubbo, NSW,  
2830.

## • Earth People Write continues on page 84

country farm and country life! I would really appreciate it if anyone has anywhere, or knows of anywhere or anyone. Please contact us! Thank you.

**J Scaife, 10 France St, Mandurah, WA, 6210.**

### Community set-up tips

*Dear EG,*

We are presently attempting to set up a co-operative or association with the view to purchasing some land and creating a shared community. We would love to hear from other readers of their experiences of setting up a co-op or association. Any inspiration, hints, dos or don'ts etc that you may wish to share, about legalities, purchase and actually creating a community would be great to receive. Please contact, **Anne Watson, 96 Noone St, Clifton Hill, Vic, 3068.**

### EG club in Queensland?

*Dear Earth Garden,*

We are a young family who live the dream (I think?) of most people who read your wonderful magazine. We spend our days surrounded by cows and calves, chooks and chickens, ducks, sheep and pigs. We are commercial dairy farmers by trade but my parents still live on the farm and have an enormous veggie garden, as well as a stone fruit orchard and bee hives. Most of what we eat is homegrown. We have lots of wildlife: approximately one quarter of our 700 acres is timbered with the natural open forest.

We would like to share all of this with your readers. We have a spare house on the place that is a bit rough, but is quite habitable. We would like to have people visiting to discuss our ideas with and to give us more ideas on sustainable agriculture, etc. An idea I have been chewing over for quite some time is an *Earth Garden* 'club'. I envisage a group in, say, Brisbane or the Sunshine Coast, organising a house full of people each weekend to come here to have a break from city life, and gardening, planting trees, and feeding animals etc. We would provide all requirements for a modest fee, and in return would share our skills (and surrounds). We can show people how to use hand tools, how to milk a cow, how to fence, raise chooks and pigs, propagate tree and vegetable seedlings, etc.

Once the gardens are producing extra vegies, the visitors would be able to take their requirements home with them. It would

be necessary to charge for produce if we provide most of the inputs. If anyone would like a holiday, or would like to discuss the idea, please feel free to contact us. We are about 80 km north of Toowoomba. Drop us a line or ring us on (076) 926 127. We would love to hear if people think it may be a workable idea. Happy Earth Gardening.  
**Bryan Davies and Rebecca Gaal, PO Box 4, Cooyar, Qld, 4402.**

### Spread the word in Pakistan

*Dear Earth Garden(ers),*

Would you please send me copies of EG 83, 86 and 89. I am purchasing these because they have some information I want to send to friends in Pakistan. I made these friends on a recent visit to a 70 year old aunt, who is a St John of God Sister, running a pharmacy in a hospital in Sahgoda — a major town in the Punjab District. Whilst there I was fortunate enough to accompany the hospital's village team on a health visit to a local village of about 5,000 people. The visit left me dumbfounded. The reason being the total lack of a sewerage system apart from an open drain and pond, no running water, no domestic refrigeration and no hot water systems. While the lack of facilities was not really over surprising, what really struck me was the total lack of the low tech, simple, wonderful alternatives most EG readers stand for. They made a quantum leap from water buffaloes to tractors and also diesel or tractor driven pumps for irrigation but this was probably as a result of money hungry landlords or super salespeople rather than good sense. There was no sign of the smaller, two wheeled, motor driven implements seen throughout Asian and European countries.

I would welcome any low cost, practical, alternative suggestions from EG readers which would have application in a rural community. I am not able to pay for professional information but am most happy to forward information on farming, building systems and power generation etc to Pakistan. Who knows — we may be able to lift the village to a sustainable agricultural system and help give the greedy landlords the flick. I will reply to all correspondence. Thank you.

**Ian L Robinson, 7 Coane St, Holder, ACT, 2611.**

### Sound soil advice wanted

*Dear Earth Garden,*

Thank you for a good magazine. We enjoy reading it cover to cover, several times over. I do this to take in some of the

information which we have been able to use or store in my mind. At last we are mortgage free — O what a feeling! Mind you we may have five acres, an eight metre caravan and a ten x four metre unit with bathing facilities, but no house. Can anyone help us on how to prepare our stiff, light brown, clayey top soil for growing vegetables and small crops of oats, barley, rye and wheat? We are on a hillside facing north, sheltered from the southerly winds. Regards,  
**Lawrie and Wendy Whitmore, 94 Old Summerlies Rd, Kingston, Tas, 7050.**

### Mudbricks in Aotearoa

*Dear Sir,*

Recently I 'raided' all available supplies of the *Earth Garden* magazine from the Gold Coast library and revived my interest in building with earth materials. At a future date I will purchase from *Earth Garden* the book by R Rich and K Smith titled the *Earth Garden Building Book*. I am wondering if you might have knowledge or information on earth building in New Zealand, such as preferred types of construction, or difficulties encountered with weather etc. Is there any NZ publication similar to *Earth Garden* printed in NZ? (although I now know your magazine is available there.) Thanks for your time and any information you might be able to forward. Look forward to hearing from you — I read the magazines with great interest. Yours faithfully,  
**L F Ryan, 6/21 First Ave, Surfers Paradise, Gold Coast, Qld, 4217.**

*Dear reader,*

You may also be interested in *Earth Garden's* new book, 'The Earth Builder's Handbook', which has just been released, and seems to be very popular with readers. We would love to have some of our NZ readers write us some articles about their experiences of owner building in Aotearoa, so if you're reading this: pick up your pen and write to us! Unfortunately, we do not know of a magazine like EG in New Zealand. I used to love reading a wonderful NZ magazine called 'Mushroom' when I lived in Dunedin in 1982 but sadly, it is no longer published. There is an excellent NZ magazine called 'Soil & Health' which I have read occasionally, but it does not deal with owner building topics. —Alan.

*Dear EG,*

Yet another fan joins your ranks! I found a copy in the local library and am busy requesting and digesting as many back copies as I can with hopes of eventually buying

all back copies available from you. Such a treasure trove of info! In the meantime, would you send the following order — marvellous birthday presents for our conservation-minded family! Sincerely,  
**Louise Barker (64), Springwood, NSW.**

### Stone building at Childers

*Dear Earth Garden readers,*

Last year we purchased 17 acres of beautiful bush at Childers in Queensland, and next year we would like to start building our home. Has anyone out there built their own stone house? We would like to communicate with anyone who has this experience or if you live near Childers and want to pass on any other building ideas please feel free. We will be renting a house in town whilst building and are on the lookout for cheap accommodation but not too run down. My husband, Danny, is in the army which is why we're in the NT. I love your magazine and feel so inspired by it. Regards,

**Lisa Shaw, PO Box 1221, Nhulunbuy, NT, 0881.**

### Peppering rabbits?

*Dear Earth Garden,*

We own a couple of acres in 'rural' Auckland, about 35 km north of Auckland city, and have a wee problem with rabbits that seem to be mad keen on undermining my vegetable garden. I don't like the thought of poisoning them or trapping them and then have them dangle or die in pain. I'd much prefer to scare them or discourage them in some way. Somewhere I remember seeing a homemade recipe for rabbit repellent using cayenne pepper, which you can liberally spray about to keep them at bay. I'd appreciate it very much if there was someone out there who knows this recipe or any other alternative and could drop me a line. Thanks,  
**Beth Wagstaff, 1686 Main Rd, RD2, Silverdale, Auckland, New Zealand.**

### Queensland cob building

*Dear EG folks,*

Have been reading EG for a while, since EG 18 and I think it's time I took out a subscription so I don't miss out. Has anyone built a cob house in Australia? If so where and did the council give much trouble? Many thanks for a wonderful informative magazine. Peace and happiness.  
**Meg Chamberlin, 34 Corong St, Macleay Island, Qld, 4184.**

*Dear Meg,*

*You live in the right State if you're interested in cob building, because Linda*

*Jeffcoat and Mal McKenna are running regular cob building workshops, and seem to be leading the charge to spread the cob word in Oz. Their work features in a chapter in 'The Earth Builder's Handbook', and you can contact them on (07) 3870 3872.*

*—Alan.*

### Nursing the environment

*Dear Earth Garden,*

Looking around for like-minded people, I finally discovered Nursing the Environment, a special interest group of the Australian Nursing Federation. This group has places for the activist or the simply curious. Regular speakers from varied backgrounds talk on such diverse topics as 'Permaculture' and 'Wound Management'. There are also speakers available, book sales, a starter's kit and training courses. This group fills an important niche, and while clearly nurses are welcome to join, other health care workers like myself are also welcomed. In September '96 there is even an international conference at Wollongong. For details, contact Dianne on (03) 9431 2663 or your local ANF branch. Best wishes,  
**Karen Young (no address supplied).**

### Swords into plough shares

*Dear Alan,*

All this talk of recycling and good tools for those working on a small scale reminds me of a story I heard years ago of two men in PNG who cut up a wrecked ship into pieces with a diamond saw. They then did a bit of old fashioned blacksmithing, hammering it into shape with tapering edges. They then folded the small end over to form an axe head and welded it in place to form a sharp-edged axe.

I have for years asked all and sundry for what I am told is a 'banana planting hoe'. If a blacksmith could turn a steel wreck into useful axes, someone could turn scrap metal into such a hoe. It is essentially the blade part of a 'mattock', or as it was called in the west of England when I used one, a 'dorker' fitted to take a hoe handle. All you'd need is sufficient length of three inch wide steel ship's plate to allow one end to form the hole for the handle, a twist, and a foot (30 cm) of blade with a hammered taper on the end. Bill Beke, the blacksmith mentioned in the previous *Earth Garden*, may like to take it up but like the recipe for juggled hare, first catch your wrecked ship. The 'Cherry Venture' must be little more than rust now and they are sinking good ones complete with oil in Bass Strait. I would buy such a hoe.

I wonder would any of your readers who grow bananas like to make a grass skirt

out of the stringy bits in the trunk of the herb when harvested and felled as they do it in the Islands for tourists? They make their own out of the inner bark of the hibiscus. Banana does not wear so well. Yours truly,  
**Mr John E Guest, 7/202 Denham St, Rockhampton, Qld, 4700.**

### Establishing a total lifestyle

*Dear Sir,*

We have found our piece of home and now the hard work starts. We have 105 acres comprising six paddocks, two dams and one spring-fed dam and seasonal creek. We have a temporary cabin consisting of a large garden shed and extension with a Rayburn number two slow combustion stove. We also have a garden area with a hot shower (via a donkey boiler) and a dual composting toilet. This area is also for the washing machine. There is a barn and the roof feeds a 7,000 gallon tank for household use, and also a 500 gallon tank on the cabin.

We have installed a solar power system for the cabin. This comprises 3 x 75 watt panels plus 3 x 40 watt panels, a regulator, 6 BP 2P566 batteries for a 12 volt system, and also a 1500 watt inverter for the 240 volt cabin requirements which are TV and stereo and Engel used as a freezer. There is also a Woods 40 amp charger to load up the generator when required. The generator is a 5 kVA petrol unit and it supplies power to washing machine and barn and charger. At present it is 11 am and the solar panels are supplying 20 amps to the batteries. We have also installed a Consul gas fridge and it is now running on setting number two as the weather is warming up. We anticipate that a 45 kg gas bottle will last three months in summer and four in winter.

We have our plans to build our home: the S series by Peter Lees. There is not enough clay in our area and the soil(?) is a coarse granite. We will be making the mudbricks of stabilised earth with 12.5 per cent white cement added to retain the natural colour of the soil. We are setting up three rows of grapes: ten chardonnay, ten chenin blanc and ten shiraz. Our other gardens are all doing well as are our fruit trees; the frost took a toll but the lemons may recover. We would like to correspond with other people with similar ideas. It is a hard but satisfying existence. We are about to start with our Cashmere goats, ducks, chooks and two donkeys as soon as we can. We are in our 50s and only wish we had started this life 20 years ago. Regards,

**John and Hazel Gillard, Lot 18 Wearnes Rd, Bundarra, NSW, 2359.**

# EARTH GARDEN UNCLASSIFIEDS

Unclassifieds are 40 cents per word prepaid. The deadline for the September issue is 1 August.

**BAMBOO WORLD** - Non-invasive clumping bamboos, edible, structural, decorative, all sizes. Display area with over 100 species, tropical or frost resistant. Edible shoot plantations. Workshops on growing, selection and uses, harvesting and treatment, cooking and recipes, structures, design, furniture making, basketry, screens, fences, musical instruments. Traditional and scientific technology. Treated poles for sale suitable for outside use. For 32 page booklet on selection, species description, usage lists, cold climate species, harvesting and treatment details, send \$30.00 to **BAMBOO WORLD**, Murwillumbah Rd, Wadeville, NSW, 2474. International orders processed. Inspection by appointment. Phone: (066) 897214.

**TIPIS** by Don O'Connor. Tipis made to order by experienced and caring builder. Covers, lining, ozans, poles. Phone or write for catalogue to Don O'Connor, 'Weeroona', Guy's Forest, Victoria, 3709 or phone (060) 371 366.

**DON O'CONNOR'S BOOKS**. A mail order service supplying good quality books on most aspects of indigenous cultures of the world. Write for catalogue to Don O'Connor, 'Weeroona', Guy's Forest, Victoria, 3709 or phone (060) 371 366.

**HOME STONE FLOUR MILLS**. Mill your own stoneground wholemeal flour for cakes and bread at home with a Retsel Little Ark Stone Flour Mill. Endorsed by the Housewives' Association. Write for catalogue to: Retsel Distributors, PO Box 712, Dandenong, Victoria, 3175, enclosing three postage stamps, or telephone (03) 9795 2725. Distributor enquiries welcome.

**EARTHWORMS**. The 'Speedy Breeder Compost Worm' revolutionises your compost and transforms your garden. Just \$15 per 1,000 worms. Price inc postage Australia wide and pamphlet on worm care. Wormborough Farm, PO Box 794, Taree, NSW, 2430. Ph (065) 539 633.

**HOME PLANS**. 90 plans for handcrafted homes of mudbrick, rammed earth, stone and pole frame construction. Mail \$58 (postage included) for "The Earth Builders Construction Detail and Plan Catalogue" to John Barton Building Designer, 31 Sharp Street, Newtown, Geelong, Victoria, 3220 or phone (052) 224 249 for fixed quote to draw / document your home plan.

**HUNTER-NEWCASTLE PERMACULTURE COURSES**. Demonstration farm-based small group learning. Emphasises practical applications. Urban and rural design. Advisory services available, (049) 389 528, PO Box 22, Paterson, NSW, 2421.

**FARMERS OF FORTY CENTURIES** - Permanent Agriculture in China, Korea and Japan. This 1911 classic, out of print book is \$19.95 (post paid) from Eclectic Books, 1 Palamino Court, Conondale, Qld, 4552. Tel (074) 944 645 / Fax (074) 944 760. Limited quantity. Wholesale welcome.

**ABOUT CANDIDIASIS - A SIMPLE GUIDE TO HEALTH AND FOODS**. (Thrush, Candida Albicans) by Patricia A Pettit ND SRN. \$8.75 includes postage. Send to PO Box 385, Coominya, Qld, 4311.

**GOURD SEEDS**. Mixed Ornamentals, mixed Hardshells, mixed Orn+Hardshells, Luffa sponge, Calabash, Snake bean, Bottle medium, coloured corn \$4.50 pkt - minimum purchase \$9.00 or 1 free \$4.50 pkt when you purchase 52 page Gourd Grower's Handbook for \$16. Bulk pkts - 30 seeds \$10 ea. All prices include postage. Send your order to: Gourd Father Quality Gourd Products, PO Box 298/EG, East Maitland NSW 2323. Money back guarantee!

**MAIL ORDER BOOKS** covering a range of subjects including Animals (specialising in Donkey books), Herbs, Health, tarot, Palmistry and more. free catalogue available from: Broomtail Publications, RMB 3030, Eaglehawk, 3556. Phone: (054) 46 9087 or (054) 46 8524. Fax: (054) 46 3749 or (054) 46 8524.

**PERMACULTURE DESIGN COURSE**. Dates: Friday 27 September and Sunday 6 October 1996. Venue: "Willuna" - Chiltern NE Victoria. Tutors: Vries and Hugh Gravestein. For particulars: send S.A.E to VR Gravestein, RMB 1130, Chiltern 3683. Phone (057) 261 596.

**SOUTH COAST FIELD DAY**. Sustainable Landuse and Living. The first one was a fantastic success and it's on again. 17th & 18th August. Candelo - The far south coast, NSW. Phone (064) 942014.

**BAMBOOSEED**. Grow your own building quality, frost hardy, drought resistant, clumping bamboo. Non-invasive. 100 seed plus instructions, send \$20 + SSAE. Kevin Lang EG, PO Box 2, Eudlo, Qld, 4554.

**PERMACULTURE by CORRESPONDENCE**. On completion you will have a full permaculture design and management plan for a property of your choice and be qualified to teach and practice permaculture. For more information send SSAE to Lorraine and René van Raders, The Green Piece Permaculture Garden, PO Box 389, Malanda, near Cairns, 4885 or ring (070) 965 138.

**DREAMING OF COMMUNITY?** Come share experiences with designers, residents and proponents of eco-villages, multiple occupancy, group title and co-housing properties. Learn the processes used to design and establish communities. Explore Crystal Waters Permaculture Village with Permaculture designer Max Lindegger and international guests. September 16 to 22, 1996. Green Harvest, 52G Crystal Waters Permaculture Village, MS16, Maleny, Qld, 4552. Phone (074) 944 676 or fax (074) 944 674.

**COMPOST EARTHWORMS**. Red and Tiger worms for compost and soil improvement. For approx 500, including instructions, send \$8.50 to Healthy Herbal Horticulture, PO Box, Turrumurra, NSW, 2074. Phone (02) 44 7309.

**WIND-GENERATOR BLADES** designed and built. Optimum efficiency from aerodynamically designed blades. Laminated-timber construction. For example, 2-bladed, 6-foot diameter wind-generator propeller, balanced and weather-proofed for \$725. Enquiries welcome. Heliptera, c/- Michael Ellinas, 2 Waylett Court, Deer Park, 3023. Phone (03) 9363 8085.

**NATURAL COLOURED WOOL** - Scoured & carded, ready to spin! Variety of shades, in compact rolls. \$25 per kg + postage. For stocklist send SAE to: Shiloh Easy Spin Wool, PO Box 295, Drysdale, Vic, 3222.

**TOBACCO SEEDS.** Our seeds are selected for their quality and flavour and have been organically grown. \$5 includes seeds and instructions. E Madge, PO Box 114, Pomona, Qld, 4568.

**INTERNATIONAL PERMACULTURE Design Course** Correspondence tuition. Personal tutor and wealth of information, combined with other students' responses and experiences. Our courses are up-to-date, inclusive, practical, personal and plain English. SSAE to Permaculture Visions, Mt Kembla Village, NSW, 2526, or Email: askpv@ozemail.com.au.

**TOBACCO SEED.** Organically grown (Virginian), cultivation and curing notes included for \$5. Also available, 'Australian Tobacco'. How to grow your own, cure your own, treat your own and cut your own. A well-researched book by John Van der Linden for \$12 (postage included) from Lyn O'Brien, c/- PO, Barmah, Vic, 3639.

**LOOKING FOR MORE MEANING IN YOUR LIFE?** Women are invited to stay at our property one week during August 19-31. Explore meditation, gardening, arts, crafts. Be refreshed! Food, accommodation free. Apply Sister Helen, Sisters of the Church, 42 Wirrang Drive, Dondingalong, via Kempsey, NSW, 2440.

**DANDENONGS VICTORIA ENVIROCARE BUILDING.** Repairs, alterations and additions to your home, using environmentally friendly designs and materials. No job too small. Rob Leereveld (03) 9754 2078.

**EARTHWORMS:** Mixed Red Wrigglers/Tigers/African Nightcrawlers (tropical worms) \$18/250 g. Includes care instructions and postage Australia-wide. **ALSO BLACK WATTLE SEEDS** (Acacia cincinnata), suitable tree for posts, poles, cabinet work, tool handles, fast growing, leaves make excellent fodder, pale yellow scented flowers \$2.50/packet. **AND TREE LUCERNE SEEDS** now available. Suitable animal fodder, wind breaks, fast growing \$2.50/packet. Send cheque/MO to Squworms Worm Farm, The Gorge, Finch Hatton, QLD, 4756.

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**WIND GENERATOR.** 1 Kw, 32 volt Dunlite wind generator. 3 blade (feathered). Fully reconditioned, complete with swivel head. \$1,500.00. Please phone Kerry 018 814 937, fax (085) 724 264. Static 32 volt generator for sale as well.

**GET BACK TO NATURE** at Barmah on the Mighty Murray. Explore the largest natural river red gum forest in the world. Canoe the world heritage wetlands of international importance, off the beaten track where wildlife abounds. For information kit phone (058) 693 347 or write to Gondwana Canoe Hire, c/- PO, Barmah, Victoria, 3639.

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**SELF RELIANCE ON YOUR OWN PROPERTY.** This permaculture course will provide you with practical skills, techniques and information to create your own productive and low maintenance property. Topics covered: Design, species selection, establishment and integration of vegetable gardens, orchards, tree crops, dams, healthy and energy efficient homes. Learn at Crystal Waters Permaculture Village through tours, demonstrations, hands-on practice, slides and talks by Frances Lang and Max Lindegger, tutors of over 1,000 people in 18 countries. Dates: September 1-14; Jan 5-18. **FREE** permaculture information kit: Green Harvest, 52/E Crystal Waters, MS 16, Maleny, Qld, 4552. Phone (074) 944 676.

**CRYSTAL WATERS PERMACULTURE VILLAGE.** Half day permaculture and community tours are conducted on the first Saturday of each month. For information contact James on (074) 944 787 or (074) 944 660 or write to 73 Crystal Waters, MS 16, Maleny, Qld, 4552. Booking is essential.

**OWNER BUILDERS TEMPORARY DWELLING.** Large army tent for sale: 9 m x 5 m. Good condition, two timber walls, windows, kitchen, third under floorboards \$1,300. Phone (074) 944 742.

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**GREEN CONNECTIONS' MAGAZINE** is a product of the Goldfields Permaculture and Landcarers group in Central Victoria. Its 32 pages are packed with great photos and informative, philosophical, entertaining and thought provoking articles by leaders in their fields, including regulars, David Holmgren, Pat Coleby and Abbie Heathcote. A calendar of events for Central Victoria, includes seminars, workshops and field days. Green Connections offers permaculture solutions for sustainable living for the urban dweller and the rural settler. \$25.00 for 6 editions. Sample copy \$3.50. PO Box 793, Castlemaine, 3450. Phone: (054) 705040 and ask for Joy.

**SPIRITUAL TOUR OF SOUTH DAKOTA.** 14th June to 7th July. Join Don O'Connor (advisory member of Spiritual Unity of the World) on this unique trip to the heart of American Plains Indians Territory to witness, support and participate in three important ceremonial events. World Day of Prayer at Devil's Tower, WY. Sundance at Rosebud Reservation, SD. Spiritual Unity of The World Gathering with the Lakota People. Cost: \$4,800 ACT NOW! Phone: (014) 924 234.

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**CABOOLTURE, QLD.** FOUR PARTNERS WANTED to buy share in ten acre orchard at Caboolture: four km from city train, dam, Queenslander, refurbished shed, nearly complete cob earth house. Refer *Earth Garden*, No 95, March-May 1996, p 34,35; *Earth Builder's Handbook*, p72. Share: Going cost of local two acre block. Dream: Build more cob houses and convention centre, wholesale nursery, courses, develop 'Findhorn' / permaculture atmosphere, have fun. Mal 07 3870 3872 wk, 074 954 203 ah.

**FOR SALE CHINESE ARTICHOKEs (Stachys affinis).** New release from China. Perennial winter root vegetable, not related to globe or Jerusalem artichokes. Small spiral tuber. Subtle nutty flavour, crisp texture similar to water chestnuts. Multiplies readily. Probably best in cool and temperate climates. Tubers only available during winter. For growing kit of 10 tubers, growing notes and recipes, send \$25 to Bundanoon Village Nursery, PO Box 83, Bundanoon, NSW, 2578. Phone (048) 836 303. Not Western Australia.

**AQUACULTURE** - Introductory course held on working farm using water recirculation technology. For details, send SAE please to David Rae, PO Box 66, Montville, Qld, 4560.

**PERMACULTURE IN THE NORTH!!** A beautiful place to spend two weeks of learning. Lots of field trips, practical exercises, group discussion, design work, contacts and friendships, and lots of FUN. June, September, and November. More details? Phone René or Lorraine van Raders on (070) 965 138, or send SSAE to R & L van Raders, The Green Piece Permaculture Garden, PO Box 389, Malanda, Qld, 4885.

**COMPOSTING TOILET INFORMATION DAY.** All your questions about composting toilets will be answered!! Invited speakers include representatives from Melbourne Water, The EPA, The Victorian Health Department as well as people living with composting toilets who have dealt with the authorities. Commercial suppliers have been invited to display their products. The construction of an owner-built model will also be displayed. The information day is intended for the general public. It is not merely a technical seminar. All questions will be welcome. The day will finish with a visit to CERES environmental park to view both commercial and owner-built models. Contacts: Stuart Downs (03) 9388 0186, Bob Fuller (03) 9344 6879 or leave a message on (03) 9344 7839.

**TRADITIONAL HERBAL REMEDIES:** Ointments, tinctures and teas. Organically grown and produced on the farm. For a complete list please send a SAE to Tintagel Herbs, PO Box 27, Central Tilba, NSW, 2546.

**ALTERNATIVE LIFESTYLE EXPERIENCE.** Black Horse Creek Community (near Kyogle, northern NSW) is holding a five day 'Alternative Lifestyle Experience', 30th Sept - 4th Oct, 1996. \$365 inclusive; camping; tipis available; vegetarian gourmet meals. Workshops include permaculture, organics, bush regeneration, bee keeping, owner building, community creating, alternative energy, ritual, dimming, sweat lodge, twirling, environmental politics, felting, basketry, weaving, yoga, meditation, and more... Only 30 places, book early. BHC, Whites Rd, via Kyogle, NSW, 2474. Phone: (066) 333 244; E-Mail: spyder@nor.com.au.

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**LOOKING FOR HERITAGE OR TRADITIONAL FRUITS AND VEG-ETABLES?** Join the Heritage Seed Curators Association and get copies of our third 'seed listing' issue of *The Curator*. This issue has 55 pages listing sources for thousands vegie, herb and fruit varieties. Membership \$20 p.a. It is the best Australian Seed Source listing. Contact: HSCA, PO Box 1450, Bairnsdale, Victoria, 3875.



**LAND LINES** are for people buying, selling, seeking or sharing houses and land. It is your responsibility to check all deals. We charge a rate of 40 cents per word (prepaid) for a listing of any desired length. All **LAND LINES** should include your name and address (phone number is optional).

Please also name your nearest large town (eg, "50 km north east of Lismore").

**LAND LINES** for the September issue should arrive at RMB 427 Trentham, 3458, by 1 August.

## NEW SOUTH WALES

1. **NAMBUCCA VALLEY (ALLGOMERRA)**, mid north coast. Five northerly facing fertile acres adjoining state forest with views to Yarrahappini, fully fenced. very large dam, organic garden, loads of new trees planted. Includes large 3/4 bedroom solid colonial style home with verandah on four sides, western red cedar used thru out, potbelly, phone, electricity, sealed road. Fully fenced a/ground pool. 10 mins to coast, 10 mins to Macksville, three mins to quiet village, gen store, school etc. **BARGAIN \$150,000.** Phone Gina or Justin a/h (065) 699 487.

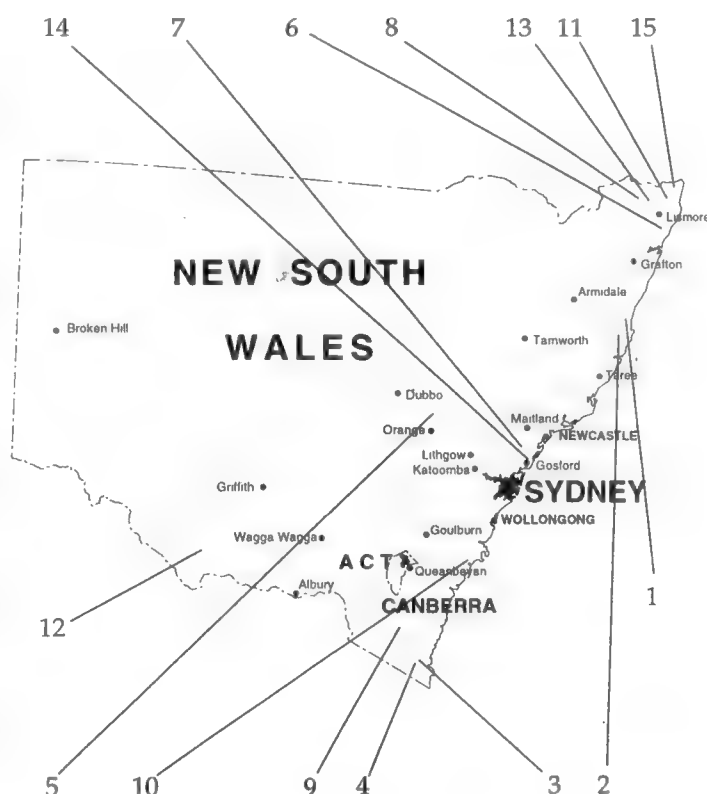
2. **TEMAGOG, NEAR KEMPSEY**, 100 acre bush block on Stoney creek. Red cedar cottage built to code, shed, loft, fencing, dams, biodynamic garden. Suit earth gardener. **Bargain, \$120,000.** Phone 065 617 256.

3. **FAR SOUTH COAST, WYNDHAM, BEGA VALLEY.** Cheap land, 110 acres bush. Permanent creek frontage. School bus route. 40 minutes to coast, 10 minutes to Wyndham. \$39,000. Phone 051 587 238, mobile 015 260 828.

4. **BURRAGATE, FAR SOUTH COAST**, 15 acres - half bush. Black soil dam and swamp. Mudbrick cottage. Quiet and beautiful. Power available. School and mail bus go past. Contact: 064 967 025. \$58,000.

5. **MUDGEES DISTRICT, 100 ACRES.** Mostly cleared, fully fenced, surrounded by national park. Great retirement or self sufficiency. Split log home, combustion stove, solar power, diesel generator. Large machinery shed, spring fed dam. A piece of peace. \$79,500 or \$89,500 with tractor and implements. Satellite TV optional. 063 734 218 ah.

6. **NORTHERN NSW**, between Iluka and Evans Head, 10 acres, adjacent to coastal Bundjalung National Park, craftsman-built solar-powered, post and beam mudbrick home, wood fired heater, cathedral ceilings and exposed beams. Excellent maintained access road, abundant wildlife, only 20 minutes from beaches at either Evans Head or Iluka. As part of a thirteen share Multiple Occupancy, price includes share in the remaining 800 acres and use of the company tractor, chainsaw and tennis court. Owner must sell. **Bargain price \$70,000 ono.** Phone owner 03 9354 7249.



**7. BUCKETTY VIA KULNURA** - Unique earth integrated design provides perfect insulation. Wood stoves, breathtaking views, passive solar house on 25 acres; three bedrooms, two bathrooms, separate studio/stables/sleepout; fenced paddocks, dam, tranquil rainforest; wildlife - solitude within easy reach - just 50 minutes from Sydney's northern suburbs. \$285,000. Phone 02 477 2269.

**8. NORTHERN NSW** - 2.2 Ha AFTERLEE. Perfect opportunity to own a beautiful piece of land. Privacy. Mature silky oak trees. Easement to permanent creek with swimming hole. Building permit. Bitumen road frontage, power/phone at boundary. Horticultural potential, deep fertile soil. 20 km Kyogle. One hour Lismore 2 1/2 hr Brisbane \$42,000 ono. Phone Graeme 066 220065.

**9. SOUTH COAST RANGE, NSW.** 200 acres old growth forest, tussock grassland, views of Brown mountain, Bull mountain, Snowy mountains. Borders State forest and Bombala River. Two permanent creeks, numerous springs amongst granite boulders, 40 inch rainfall. Fenced on two sides, right of way access via Thoko Station. Nimmitabel 20 km, school bus route, one hour coast/snowfields. Reluctant sale. \$90,000. Phone 003 815 454 or write EFP, PO Box 50, Oatlands, Tas, 7120.

**10. ULLADULLA AREA** - Christian Multiple Occupancy. 1/6th share of 100 acres. Home management site approximately five acres cleared with 6 m x 9 m shed, dam, level house site with magnificent forest views, small orchard. Adjoining State forests, 20 minutes to beaches. Phone available, reasonable land rates. \$45,000 neg. Ring 048 877 243.

**11. LISMORE, NIMBIN 30 MINS,** beautiful five year old timber house, 360° verandahs, starlight loft on two acres with permanent spring fed dam and stunning mountain views. Secure Strata Title. \$100,000. Phone: 066 337 040 evenings.

**12. 104 ACRES FIVE MINUTES FOR DENILIQUIN,** excellent water (bore), large open-plan three bedroom timber home plus one attic room, abundant birdlife, lots of beautiful old trees, established garden, orchard and vegetable garden with watering systems, chook yard, large machinery shed with lock-up room, power and water, 100's of young trees, approximately 80 acres of cultivated organic land, natural lagoon, school bus stop at front gate. \$160,000. Phone 058 813751.

**13. FAR NORTH COAST 35 km NW Lismore.** Beautiful spacious easy maintenance home. Wide veran-

dahs. Elevated position. Extensive views. Underhouse garage and workshop. Four acre organic gardens. Fruit trees. Complete privacy. Power, telephone. Cabin, undercover caravan. Secure strata development. School buses. Store. \$159,000 ono. Phone: 066 337 033.

**14. CENTRAL COAST** - Natural house on three acres part rainforest, five minutes Gosford. Three bedroom cedar pole home with built in robes, timber kitchen, floors, solar hot water, town and tank water and enviro. North facing and views over creek and bush, adjoins nature reserve. Organic paints only and few chemicals used, ideal for CFS/allergy folks. \$270,000. Phone 02 477 1113, 043 23 9108 ah.

**15. 3 ACRE ARBORETUM, FAR NORTH COAST NSW.** 2 bedroom, 6 yr old home, 1 1/2 km picturesque village, 1/2 hr to clean quiet beach, 12 km to Murwillumbah. Established gardens, (prize winner in local competition), small seasonal creek, orchards, bush tucker/rainforest trees in bush setting. Verandahs, carport, garden sheds, rainwater/town water. Phone 066 795 427.



## QUEENSLAND

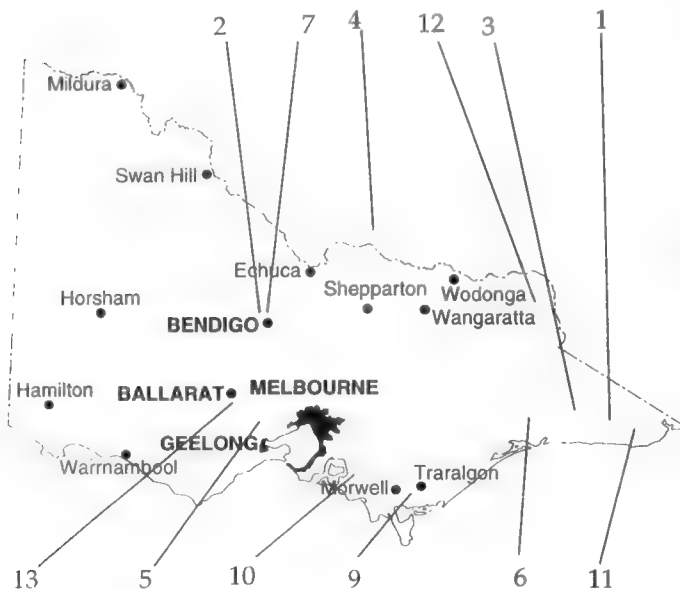
1. CURRA, 15 minutes north of Gympie. Five acres; partly fenced; native bush; privacy with ideal homesites. Phone and electricity available. \$32,000 ONO. Phone 067 346 288.
2. TARA QLD - Sell or swap for car or bike value \$13,000. 32 acres, dam, part fenced. Phone (090) 933 428.
3. KILLARNEY - Picturesque country town nestled in the mountains. Five minutes to waterfalls and national park. Population 1000. Rich mixed farming area, 32 km south of Warwick. Two hours to Brisbane and Gold Coast. Older style three bedroom home on half acre on the outskirts of town. Sleepout, polished floors, combustion stove, fully fenced, established trees and gardens. \$67,000. Phone owner 04 14 806 188.
4. WALK IN-WALK OUT. Renovated Queenslander on beautiful, safe, secluded acreage backing onto State forest. Solar power, stables, machinery too numerous to mention. Five minutes Wivenhoe dam. 20 minutes Fernvale 1 1/4 hour easy drive Brisbane. For full list and details. Phone 074 267 647.
5. HISTORIC MT MORGAN. Lovely old solid weatherboard home on half an acre. Renovations including new bathroom and laundry. Two bedrooms and sleepout. Enclosed walk area underneath, chook pen, sheds etc. Quiet area, wallabies at the back fence, bird attracting natives planted, some fruit trees - would lend well to Permaculture. All amenities; 10 minutes walk to main shops, schools etc, half an hour to Rockhampton, one hour to Yeppoon and Capricorn Coast. Currently being rented for \$100 per week. Reluctant sell, but it must go. \$65,000. Phone 074 479 342.
6. URGENT SALE. Five hidden acres 25 minutes from Rockhampton, 10 minutes to Mt Morgan. Lightly timbered with iron barks and gums, cycads and blackboys. Very pretty wet weather creek along one boundary, half fenced. Power and phone handy, house site cleared. \$20,000 ono 074 479 342.
7. 22 ACRES, CERTIFIED BFA ORGANIC. Large dam (full) site for three other dams, town water, electricity, can be subdivided, entrances from two streets, western fall of range, deep, rich soil, approximately 28°S, ideal permaculture property. \$60,000 ono. Phone owner 076 641 378 ah.
8. JIMBOOMBA. 45 minutes Brisbane, one hour Gold

Coast. 22 acres easy walk schools, shops, pub. Cavity brick four bedrooms, two bathrooms, modern low maintenance home, solar HWS, pool, established permaculture gardens, hundreds of trees planted including fruits and nuts, all irrigated, organic vegetable garden. Excellent fencing, yards, shelters, arena with floodlights. Many possibilities. Two dams with virtually unlimited water \$295,000. Phone 07 5546 9488.

9. PERMACULTURE VILLAGE. One acre freehold group title lot at (and leasable community land) Crystal Waters. Cabin, water, power, phone. Quiet lot with lovely views. Half hour to Maleny. 1 1/2 hours to Brisbane \$60,000 phone Karin 074 944 660

## VICTORIA

1. EAST GIPPSLAND, VICTORIA, GOONGERAH (70 km north of Orbost). 35 acres timbered. Cabin on tank water, studio, goat fencing + shelters, fruit trees, creek. 10 minutes walk school. 5 minutes walk Brodribb River. \$50,000 (056) 681 638.
2. WEDDERBURN 5 MINS, BENDIGO 50 MINS. 60 acres, spectacular views, great climate, SEC, phone, ample dam and rain water. Two bedroom home, 5YO, open plan, timber kitchen, terracotta and carpeted floors. Nectre wood heater with hot water jacket linked to solar and SEC. 20 x 30 shed. Established garden, fruit trees, large a'ground pool. Heaps potential, reluctant sale. \$92,000 neg. (054) 947 224.
3. W TREE NEAR BUCHAN, 100 km from Bairnsdale. Across the road from ONTOS Health Retreat. Mudbrick and cedar three br house. SEC and two large concrete water tanks. 115 acres. Astounding views of mountains. Large workshop. Triple garage. Cedar cabin self contained in excellent recently built condition. Established orchards. Open fireplace and near new Rayburn woodstove full plumbed for hot water. \$135,000 ONO. Call Vince on (051) 580815.
4. JERILDERIE, 65 km from Tocumwal. Circa 1881 Mechanics Institute hall. Large block. c/w creed, large gardens, residency approval, combustion stove, timber, sewerage. \$36,000 03 9359 1866/014 027 035.
5. ANAKIE - 25 minutes from Geelong. 38 acres, approximately 15 still bush, which abounds in native wildlife. Picturesque, peaceful and undulating land with valley outlook. Four dams, shed, hut, rainwater tank, new fencing, planning permit and levelled house site. \$78,000. Phone 052 817381.



**6. EAST GIPPSLAND, SWIFTS CREEK**, 90 km north of Bairnsdale. 190 hectares, mainly bush, creek frontage, 3 bed room mud brick house, wonderful views, abundant wildlife, state forest border. \$115,000 ono. Phone 03 9347 0153 or 019 183 677 ask for John.

**7. WOODVALE** 10 km north of Bendigo. Mudbrick cottage on 20 acres (eight hectares) treed, adjoins Whipstick Forest on two boundaries. Solid dry rammed mudbrick with internal timber portal truss frame. Nine squares including loft. Completed to lockup stage, slate flooring, corrugated iron roof, stone fire-place \$45,000. Phone 03 9576 2548.

**8. GIPPSLAND.** 100 acre land for wild life property. 60 acres pastured 40 bush. 20 km major Latrobe Valley city. Very secluded, one mile Merriman creek frontage. 2.5 acre dam, five yabbie dams. Three bedroom fibro house. Solar wind power, back-up generator, gas fridge, slow combustion stove and heater, large fully enclosed shed, large machinery shed, three horse shelters, two large wind mills. A nature lovers paradise, koalas, platypus, gliders, possums, kangaroo, wallabies etc abound, 105 species of birds identified, ferns, wild flowers, orchids etc. Has to be seen to be appreciated. \$180,000. 051 977 281.

**9. MIRBOO NORTH**, secluded half acre, FS, north aspect, fruit trees, bush surround, walk to town, \$24,000. 03 9877 0066.

**10. NARRE WARREN EAST** 16 acres. Short drive to shops and railway station but secluded and secure. Seven paddocks well fenced. Two dams. Adjoins conservation corridor. Some natural bush and pas-

ture. Old style house of approximately 10 squares. Septic and tank water. Power and phone. Double garage and four sheds. Ideal to build your own mud brick house. M. Hall 03 9707 4222.

**11. CANN RIVER VALLEY**, 17 km north of Cann River, surrounded by forest, 188 acres, 20 acres river flats, 30 acres cleared hills, balance bush. Under-ground irrigation on eight acres, currently used for BD vegetables.

Would suit orchard, flowers or herbs. Modern 18 sq house, three bedroom, large verandah. Separate packing, machinery and hay sheds. Land and buildings only for \$189,000 or on a WIWO basis with machinery includes two tractors and much more. Phone: 051 587 245.

**12. SITUATED IN THE BEAUTIFUL UPPER MURRAY REGION OF VICTORIA**, there is a beautiful plateau of 1000 acres, offering peace inspiration and the chance to create a lifestyle that reflects you. A one-sixth share in this magnificent property is being offered for sale. The share contains two excellent dams containing over three acre feet of water, enough for an extensive garden and orchard.

The excavated house site has forty feet of lovingly constructed rock wall already build, and is near the semi-permanent stream that passes through the property. The property has a balance of native timber (stringybark, red and yellow box) and cleared land, including fertile creek flats. Access via a dirt track, steep but accessible. Only twenty minutes to a small town. Price: \$42,000. Phone 014 924 234, PO Box 383, Healesville 3777.

**13. BETWEEN LEARMONTH AND BURRUMBEET.** Unique two storey circular castle. Combine two double brick cylinder shapes, separated by straight section, include an underground living area, build this into the base of Mount Weatherboard. Breath taking views of Lake Learmonth and Lake Burrumbeet add five acres, crystal clear spring and bore. 10,000 rain water tank.

Direct access to Melbourne via bypass and ten minutes to Wendouree. One off executive property architect designed two storey four bedroom. Large master bedroom with walk in wardrobe and ensuite. Two lounges, separate dining room kitchen. Large billiard room with table includes extensive back pergola with tiered rock wall fernery, bird avery, fish ponds. 30' x 22' garage, 22' x 12' shed. Open stable, woodshed, central heating or can be heated by two combustion heaters. Would suit bed and breakfast venue. Price \$260,000. Further details - photo. Phone 053 432 346.

**SOUTH AUSTRALIA**

**KAPUNDA** 80 km north of Adelaide GPO. 17 undulating acres with income producing worm farm. Three bedroom solid brick home, 14,000 glns rainwater also mains. 50 fruit and nut trees, plus 20 grape vines under cover. Property borders permanent creek with lots of established and new trees. Good shedding, chook runs, aviaries etc. \$165,000. Phone Max on 085 662137.

**WESTERN AUSTRALIA**

**PERENJORI.** 350 KM NORTH EAST PERTH. Well treed three acres good fences. 10 minutes walk to shops, school. 20' x 12' shed, 100 metres asbestos fence, septic system. Fowl pen, goat shed and yard. \$9,500. Phone 099 53 1105.

**WANTED TO RENT/BUY**

**WANTED TO RENT/BUY.** We are a caring family looking for a house on small acreage to rent and eventually buy. We will look at areas between Lismore and Gympie. Fax/phone Lynn or Michael on 074 932 936.

**WANTED TO BUY**

**WANTED - PLEASE HELP:** Couple (self employed), two dogs and eight year old girl want to join an active, friendly, environmentally sound community hopefully with a spiritual environment - coastal NSW. Prefer land or house/land, power, phone, close large town, no drugs, pay up to \$80,000 (neg). Urgent! Janice Lunnon, 745 Old Northern Rd, Dural, Sydney, NSW. Please phone (02) 651 3861.

**FOR RENT**

**FOR RENT:** Two bedroom A-frame house on about five hectares on secluded beach, accessible only by boat, 35 mins tinny ride from Townsville across Cleveland Bay, Solar and gas powered, abundant water, mountainous National Park behind, approx 50 mature mango trees, suit mature couple who enjoy fishing and outdoor activities, with own boat. Phone 077 727688 bh 077 214887 ah.

**SE QUEENSLAND/BORDER RANGES** (10 km from Rathdowney, 100 km from Brisbane). Small partially renovated one bedroom cottage on five acres. Beautiful, tranquil setting. Building not finished so rent

negotiable in exchange for work. Will consider long-term rental. Bond and references required. Phone Robin on 06 288 9420.

**FREE ACCOMMODATION** on 160 beautiful acres west of Bundaberg, SE Qld. Caravan (with power and water) rent free in exchange for eight hours help per week in garden.

Also option to share in business growing fruit and plants for market. Share property with vegetarian couple (n/s, n/d). Prefer single woman or mother and child. Wayne and Milu, PO Box 235, Gin Gin 4671. Phone 071 572 736.

**BRISBANE.** Small share house. Peaceful environment, big yard. Solar HWS. Own room and food. Shar power and phone. \$50 PW. Bond Neg. Tom. 10 Koondara St, Camp Hill, 4152.

**DALBY-QUEENSLAND.** Long-term rental available to environmentally responsible tenants. Suitable for couple without children. Wildlife sanctuary/forest setting. 40 minutes town. Solar-powered homestead on 100 acres.

Two storied, slate floors, wide verandahs, pot-bellied stove, composting toilet. Large shaded veggie garden, chook pens, dog pen, stables, sheds. Plenty of water, four tanks and two dams. Suitable for health retreat or cottage industry. Horse trail riding business currently operating. Beautiful tranquil setting and much wildlife. References and bond required. Option to buy available. Phone 076 682 171.

**WANTED TO SWAP** - our home on South Coast of NSW for home in Hobart region, Tasmania, for one year period from July 1996. We have five bed timber home plus study with ensuite to main, set on fenced half acre with organic garden, hothouse, fowls and geese, sandpit, treehouse and play equipment. Would like four bed home perhaps with acreage within one hour of Hobart.

Our house would suit family and has schoolbus at gate, pets okay. Three minutes drive to Moruya, 15 minutes to Batemans Bay, two hours to Canberra, four hours to Sydney. Phone or fax 044 742 727 for more information.

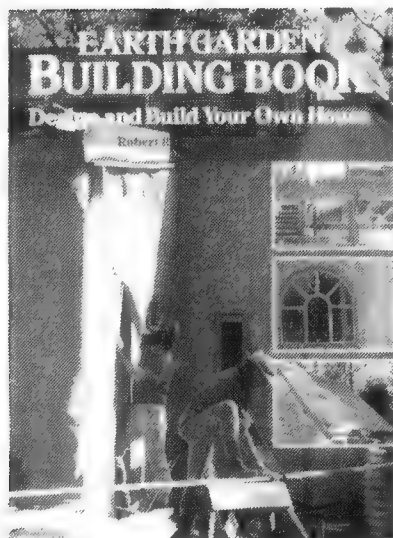
**WANTED TO CARETAKE**

**SKILLED HORTICULTURIST** with a sensitivity to ecology, partner, two children, bees, chooks, look to caretake and contribute on a perm basis, development of a property based on ecologically sustainable principles. Please call (02) 655 1071 or (02) 656 1006 after 8 pm.

# EARTH GARDEN MAIL ORDER BOOKS

Books to help you along the *Earth Garden* path.  
These books can be ordered directly from *Earth Garden*.

See page 96 to order.



## **Earth Garden Building Book** **Design and build** **your own home**

by Robert Rich & Keith Smith

This is the 300 page classic for people who want to build their own home from natural materials, in harmony with their surroundings. It answers all the questions for Australian home builders. The authors show how anyone of average intelligence and reasonable health can build their own home, and probably not end up with a 25 year mortgage at the end of it all. "This book is intended to provide an antidote to the stereotyped Australian suburban sprawl of red brick houses with red tile roofs, set squarely on a rectangle of ground," say authors Bob Rich and Keith Smith.

**\$29.95 plus postage.**

## **Energy From Nature** **Compiled by Peter Pedals**

Rainbow Power Company products catalogue for operating a stand-alone power system - hydro, solar, wind or hybrid. 139 pages, eighth edition.

**\$19.95 plus postage.**

## **Home Herbal** **by Penelope Ody**

A fresh look at making your own herbal remedies. 144 pages jammed with direction and visual information. The book's photographic demonstrations make it a must for any family. A beautiful, practical,

manual, which is very user-friendly. From tonic wines to lotions and emulsions, it's all here. 144 pages, large format paperback. **\$24.95 plus postage.**

## **The Hard Times Handbook** **by Keith & Irene Smith**

A new, revised edition. Unemployment continues to make life hard. Learn how to survive hard times, save money and consume fewer of the world's diminishing resources.

**\$14.95 plus postage.**

## **The Earth Gardener's Companion** **by Jackie French**

This book is a fruit and vegetable-growing calendar for the not-quite self-sufficient. It's an excellent introduction to natural pest control. With the Companion you will know what to do in your garden at any time of the year, and get a total picture of organic garden health. Generously illustrated.

**\$7.95 plus postage.**

## **The Healthy House Cow** **by Marja Fitzgerald**

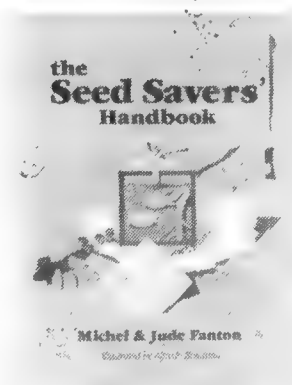
This is Australia's first organic house cow book. From fencing to cheesemaking and organic health solutions. Loads of interesting recipes, even for expert house cow owners. *The Healthy House Cow* is published by *Earth Garden*. 144 pages.

**\$12.00 plus postage.**

## **2 Minutes a Day for a Greener Planet** **by Marjorie Lamb**

To quote the introduction, "Most of the tips in this book will cost you less than two minutes to put into practice. But they will last you a lifetime." Basically the book presents tips and commonsense that everyone can put into practice as they go about their daily lives. It looks at saving water, saving paper, saving energy, how to Green the workplace and even explains the best way to approach manufacturers, politicians and the like with letters outlining your concerns about certain relevant issues. This book will not only help you to save money it will also help you save the Earth.

**\$14.95 plus postage.**



## **the Seed Savers' Handbook** **by Michel & Jude Fanton** **Illustrations by Alfredo Bonanno**

*The Seed Savers' Handbook* describes the seed collecting, growth cycles, propagation, cultivation and traditional kitchen and medicinal uses of 117 vegetables, culinary herbs and edible flowers. Seed-saving is enormous fun. Any accomplished organic gardener should have this remarkable book on their shelves. It is tightly edited, superbly designed, and dripping with exquisite illustrations.

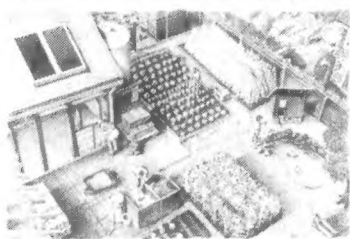
**\$20.00 plus postage.**

## **Household Self-sufficiency** **by Jackie French**

Here we have the ultimate guide to making everything from remedies for acne and baldness remedies to candles, love potions, varnish and wool wash. Written in Jackie's usual accessible style, it is a book for people who are sick of acrid commercial synthetics and who aim to end their total dependence on chemist shops, supermarkets and hardware stores. Even more it is for people who like doing things and enjoy the process as well as the end result. As Jackie says, "Once you've built your own house, made your own paper, brewed up a remedy for haemorrhoids and boiled up your own ink from wattle galls — you start getting the suspicion that maybe you can cope with anything." If you have never done any of those things but feel you'd like to, then this is the book for you.

**\$19.95 plus postage.**

## The Australian SELF-SUFFICIENCY HANDBOOK



Edited by Keith & Irene Smith & Alan Thomas Gray

### The Australian Self-sufficiency Handbook

Edited by Keith and Irene Smith and  
Alan Thomas Gray

The best of *Earth Garden* including new and unpublished material. This is the manual of self-reliance to inspire confidence in anyone who wants to make a new start. This is coal-face *Earth Garden* written from first hand experience by two decades of *Earth Gardeners*. If you are looking for a survival guide for the 21st century — this is it.  
**\$24.95 plus postage.**

### The Straw Bale House by A & B Steen & D Bainbridge

Building with straw sounds like 'The Three Little Pigs', but it's actually an old, rural-American method of low-cost, quick to build, housing. This large, well-illustrated American text shows you how to do it. 295 pages, large format paperback.  
**\$45 plus postage.**

### Backyard Self-sufficiency by Jackie French

164 pages of wisdom to ensure maximum productivity and pleasure from a small plot. Jackie's jam-packed guide tells you how to create a Garden of Eden in your own backyard.  
**\$14.95 plus postage.**

### Jackie French's Guide to Companion Planting in Australia and New Zealand

This pocket-sized 126 page book is Jackie's guide to companion planting for fruit, vegetables and flowers.  
**\$9.95 plus postage.**

### The Wilderness Garden Beyond organic gardening by Jackie French

Jackie goes beyond the ideas and methods of conventional organic gardening. Radical ways for natural growing without weeding, mowing or fertilisers. A landmark for Australian gardening. 186 pages.  
**\$19.95 plus postage.**

### ORGANIC GARDENING in tropical climates By Liz Sinnamon

At last! A guide to organic fruit and vegetable gardening written specifically for tropical and sub-tropical climates, by long-time *Earth Garden* contributor, organics teacher, and practising organic grower, Liz Sinnamon. This 128 page paperback is published by *Earth Garden*, and is suitable for beginning or established organic gardeners.  
**\$12.95 plus postage.**

### Herbal Health by Brenda Little

A simple look at remedies for common ailments. It is a beautifully presented book which features a detailed colour photograph of each herb next to the relevant text. A brief history and the applications of 25 herbs are described, along with reference to any necessary cautions. *Herbal Health* includes information on home preparations, drying, storing, and tincture making.  
**\$19.95 plus postage**

### Earth Garden back issue library

Nearly all the back copies from 1972 till one before the current edition (except EGs 2, 3, 10, 13-15, 29 and 50: out of print). A survival kit of self-sufficiency, this unique library (over 9 kg) has over 4,000 pages of practical information on growing, building, energy, livestock, craft, tucker, and tales from New Settlers all around Australia. The ultimate present.  
**\$285 plus postage.**

### Earthworms Unlimited by Amy Brown

This book provides a comprehensive guide for gardeners, farmers, conservationists and aspiring worm farmers on all the beneficial properties of earthworms. As a small business worm farming can provide a living wage. But worms can also compost all kitchen scraps, replace chemical sewage works and regenerate our land.  
**\$14.95 plus postage.**

### The Organic Garden Problem Solver by Jackie French

A 140 page, large format guide to coping naturally with pests and other garden problems, from *Earth Garden's* famous organic gardening columnist. An A-Z solver for fruit, vegetables, ornamental flowers, trees and lawns. Excellent.  
**\$19.95 plus postage.**

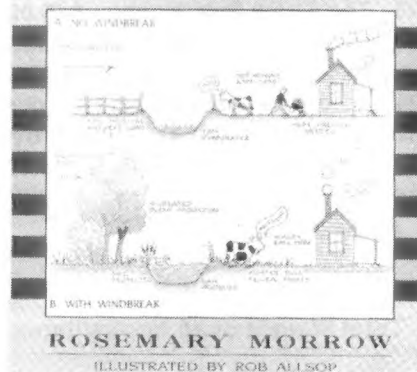
### Jackie French's Chook Book

Jackie's 128 page book on keeping chooks. A well-priced little book which provides guidance and clever flock management ideas. Lots of recipes too. Handy whether you've already got chooks, or don't know the vent from the crop.  
**\$12.95 plus postage.**

### The Aussie Tomato Book by Keith & Irene Smith

Everything you need to know about growing, cooking and preserving tomatoes, in a superb new book from our former *Earth Garden* publishers.  
**\$14.95 plus postage.**

## Earth User's Guide TO PERMACULTURE



### Earth User's Guide To Permaculture by Rosemary Morrow

"Don't muck about, just do it." That's the style of Rosemary's intensely practical book (introduction by Bill Mollison), which is based on two real life permaculture properties. Whether you're in a flat or on a broadacre farm, if you're interested in permaculture this 152 page, large format book is the practical text with the reasonable-price tag.  
**\$19.95 plus postage.**

# BOOKS AND BACK ISSUES OF EARTH GARDEN

## BOOKS

See previous page for descriptions. Please add postage, and allow 3 weeks for delivery.

1. The EARTH BUILDER'S Handbook (80 pages) - \$9.95 (add postage: 300 grams) ..... \$
2. The Australian Self-Sufficiency Handbook (340 pages) - \$24.95 (add postage: 700 grams) ..... \$
3. The Earth Gardener's Companion, by Jackie French - \$7.95 (add postage: 200 grams) ..... \$
4. Earth Garden T-shirts ☐ small (16) ☐ medium (20)  
☐ large (24) ☐ extra large (28) - \$16.00 (add postage: 300 grams) ..... \$
5. Earth Garden Bib & Brace overalls (dark green) - \$42.95 (add postage: 900 grams) ..... \$  
☐ Size 77 (S) ☐ Size 87 (M) ☐ Size 97 (L) ☐ Size 107 (XL)
6. Earth Garden natural DOG SOAP - 3 for \$8.95 (add postage: 400 grams) ..... \$
7. Jackie French's BACKYARD SELF-SUFFICIENCY - \$14.95 (add postage: 300 grams) ..... \$
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19. The Aussie Tomato Book - \$14.95 (add postage: 180 grams) ..... \$
20. Earthworms Unlimited - \$14.95 (add postage: 250 grams) ..... \$
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